# OHIO CULTIVATOR.

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## OHIO CULTIVATOR.

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EDITOR AND PROPRIETOR.

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Address M. B. BATEHAM, Columbus, O

### The Atmospheric Churn--Caution.

As great efforts are being made at the present time to effect sales of these churns throughout Ohio and other States, we deem it our duty to advise our readers not to be too hasty in purchasing them, but to wait until they have had the test of further experience. We have been told that this churn is liable to one very serious objection; namely that the *quantity* of butter obtained by it from a given amount of milk or cream is considerably less than by ordinary churns. This may be a mistake; or possibly the deficiency was owing to the churning being done too rapidly; but still we think there is reason to apprehend that the objection is a real one.

Since writing the above we find a notice of the atmospheric churn in the Albany Cultivator, in which the following experiment is detailed:

In the trial which we witnessed, butter was produced from cream in *seven* minutes, and from milk in *nine*.—Mr. Emerry was present with one of Kendall's churns, and produced butter from cream in *ten* minutes. An equal quantity of cream was used by both churns—the Atmospheric produced *one pound* of butter, and Kendall's *one pound seven and a half ounces*. Such was the result on this trial—how it would be on other trials we cannot say; neither can we say positively, what was the occasion of so great a difference in the amount of butter produced by the two churns. The Atmospheric churn appears to operate on a correct principle—that of mingling the air with the cream; but we are not in favor of such *rapid* churning. Having formerly had some experience in making butter, we should prefer that the churning, for a quantity of ten to twenty pounds of butter or more, should be prolonged to thirty minutes, at least.—According to our experience, the best butter is not produced by a very *short* nor a very *long* period in churning. If it is churned too quick, the separation is not complete, and the butter, besides being less rich, is deficient in quantity; if the process is continued too long, the butter is likely to be *oily*. We think our best butter makers would decide that churning for ordinary quantities, should occupy from thirty to fifty minutes.

### Fair of the American Institute.

The agricultural and horticultural departments of the exhibition of this association for the present year will be opened on Tuesday, October 3d, at Castle Garden, New-York. Vegetables, fruits and flowers designed for exhibition, must be brought to the rooms and arranged the day previous—(Oct. 2.)

Plowing and spading matches will take place on Thursday, the 5th of October, at White Plains, Westchester county.

The central convention of Fruit-Growers, called by a notice from the committees of the Massachusetts and the Pennsylvania Horticultural Societies, and the committee of Agriculture of the American Institute, will meet at Judson's Hotel, No. 61 Broadway, New-York, on Tuesday the 10th of October, at 10 o'clock, A. M. The objects of the convention are to compare fruits from various localities; to determine synonymes by which the same fruit is known; to compare opinions respecting the value of varieties of fruit now in cultivation; and to elicit and disseminate pomological information. Persons are requested to bring with them to the meeting, different kinds of fruits, carefully packed and labelled, accompanied with memoranda in regard to the soil in which they grew, and facts in regard to their culture.

The cattle show will take place on Wednesday and Thursday, the 11th and 12th of October, at the Washington Drove Yard, on Forty-fourth street, between Fourth and Fifth Avenue. All entries under this head must be made, and pedigress delivered on or before Monday Oct. 9th. They may be sent to T. B. Wakeman, Esq., Secretary of the Institute, New-York.

### District Agricultural Fair at Xenia.

It will be seen by the Schedule in the last number of this paper, that liberal arrangements are being made for the approaching Exhibition at Xenia; and we doubt not there will be a large gathering of farmers, mechanics and others on the occasion. We hope, too, that those who go there to *see* what others may bring for exhibition, will feel in duty bound to do their share towards making up the show, by contributing something of their own production or manufacture. Let each farmer and mechanic show the best he can, and compare his own with others; then he may learn how to improve. Remember that competition for the premiums is open to all the south-western quarter of the State.

The Fair it will be seen is under the management of the Greene county agricultural society. The members of the State Board of Agriculture will be present, and assist in carrying out the arrangements.

### Meeting of the State Board.

The members of the Ohio State Board of Agriculture are requested to meet at Stacy's Hotel at Xenia on Wednesday, September 27th, 1848, at 10 o'clock A. M., to transact such business as may come before them, and attend the First District Agricultural Fair.

Provision is now made by law for defraying the expenses of members in attending meetings of the Board, and it is hoped that all will be present.

*By order of the President.*

M. B. Bateham, *Secretary.*

### Agricultural Fairs in Ohio for 1848.

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| First District Fair, at | Xenia, | September, | 20 and 21. |
| Hamilton County, | Carthage, | " | 29 and 30. |
| Ross County, | Chillicothe, | " | 28 and 29. |
| Washington County, | Marietta, | " | 28. |
| Muskingum County, | Zanesville, | Oct. | 19 and 20. |
| Mahoning County, | Canfield, | " | 3 and 4. |
| Trumbull County, | Warren, | Sept. | 20 and 21. |
| Clermont, (Franklin tp.) | Franklin school house | Sept. | 30 |
| Huron and Erie, | Norwalk, | Oct. | 12. |
| Geauga County, | Chardon, | Sept. | 28 and 29. |
| Guernsey County, | Cambridge, | Oct. | 19 and 20. |
| Licking County, | Newark, | Oct. | 11 and 12. |
| Clark and Madison, | London, | Oct. | 12 and 13. |

We regret that so few of the Societies have as yet informed us of the time and place for holding their Fairs—or if notices have been sent us, the papers have escaped our eye. We hope the omissions will be supplied in time for our next.—Ed.

Potatoe rot in Ireland.—*Wilmer & Smith's European Times* says:—All the indications of destruction which developed themselves in the autumn of 1846 are now reappearing; and a luxuriant field of this essential esculent becomes in twenty-four hours a withered and blackened mass. From a variety of well-authenticated quarters we learn that the destruction is already most extensive, and the pestilential effluvia which salutes the passenger on the roadside indicates but too fatally the extent of the mischief under ground.

The Ohio Fruit Convention, it will be remembered will take place in this city on the 27th and 28th of next month. From all that we can learn it bids fair to be well attended. We shall expect to see all parts of the State represented this year, and a great deal accomplished in the way of correcting erroneous names of fruit, making known the finest varieties, &c. It is our intention to bring an assortment of named specimens of eastern fruits from the Convention at Buffalo for comparison with ours.

☞ All fruit growers and nurserymen in Ohio and adjoining States are cordially invited to attend this convention with specimens of their fruit, and participate in its deliberations.

The convention will be held in the Hall of Representatives. Persons sending or bringing fruits are requested to furnish a list of the varieties to the Secretary.

### Remarks on Wheat Culture.

The farmers of Ohio are manifestly beginning to improve in their practice of wheat culture. We find on inquiry that very many of them *plow deeper* and *drain their lands* better than formerly, and a better system of *rotation* of *crops*, including a more liberal use of *clover* is being introduced in many sections of the State. In some neighborhoods (though too few as yet) the *Subsoil Plow* is now in use—*manure* is carefully saved and applied, and some experiments are being made with *lime*. And last, but not least among the improvements in wheat culture is the use of the *drill* or sowing machine for putting in the seed in rows and of uniform depth, thereby greatly lessening the liability to injury by the winter, and securing a greater yield of grain.

*Gatlin's Wheat Drill*, has been in use more or less in a number of counties of this State for the past two or three years, and as far as we can learn the result has been highly favorable. We should be glad if friend McWilliams or some other qualified person would send us a few facts on this subject.

*Pennock's Wheat Drill* is a larger and more perfect machine for the purpose, and is becoming quite popular in some parts of New York, Pennsylvania and other eastern States, but we believe has not yet been introduced in Ohio. (More about this at another time.)

As this is the season for wheat sowing we simply want to urge upon every one of our farming readers to try and make some *improvement* this year in the business of growing this greatest cash staple of our State—then when the proper time arrives be sure to let your brother farmers know the results of your experiments through the columns of the Ohio Cultivator.

The following remarks on wheat culture from the American Farmer of the present month contains some practical hints of importance. That portion relating to *bone dust* and *guano* may be considered as designed for the farmers of Maryland and other States where the land is poorer and grain dearer than in Ohio.

*Wheat.*—As this is the chief money crop of a very large majority of agriculturists, too much pains cannot well be paid in putting it in; and, therefore, all possible care should be given to the preparation of the soil. It is vain to expect a large yield of wheat, unless the ground possesses those elements which enter into the composition of

the plant. In all reliable analyses which have been made of the wheat plant—its kernel, as well as straw—large portions of potash, in various forms, have been found; therefore, ashes or potash are essential to its growth in every soil where it may be cultivated. So, also, is *Lime*, and where that mineral does not previously exist in the soil, it should be applied, with the view of disengaging the potash, so generally met with in clays. *Bone-dust* too, should be provided, nor would a few bushels per acre be out of place—even a single bushel would exert a healthful and salutary effect—so, also, would *plaster*, notwithstanding this latter mineral is held in horror as a manure for wheat by some, as we think without cause. *Marl*, which, independent of its calcareous matter, comprises within its constituent elements a very appreciable quantity of potash and phosphoric acid, will be found to be a very congenial manure, and may be relied upon whenever its application is practicable. Wheat sown upon *Clover-leys*, or in *corn-fields*, may not require any extra manuring, because, in the first description of soils, all the elements essential to the growth and perfection of the wheat-plant and its berry, already abound, so also is it the case with corn lands which have been manured from the stables and barn-yards, as the proper salts are ever present in animal manures. In *marsh mud, of salt marshes*, we have, likewise, those elements which render it peculiarly adapted for the purpose of manuring wheat lands.

*Guano*, combines so many of the constituent elements which enter into the composition of the wheat plant, as a whole, as to render it a manure of peculiar adaptation to its wants. So well satisfied are we of its efficacy, that we would not hesitate to undertake, for a wager, to raise a large crop of wheat with it alone, even upon *exhausted clay, or clay mould lands*, provided, such lands were previously put in a state of fine tilth, and the ploughing had been deeply and faithfully executed; for upon such lands, its wonderful fruits are most manifest. In *Guano*, we have *uric acid*, a substance capable of being, by the process of decomposition, (always consequent upon its being submitted to the action of heat and moisture) converted into the *carbonate of ammonia*, the nutritive principle which chiefly elaborates the grain; we have also, in it, already formed, *carbonate of ammonia*, which performs, though more promptly, the same office,—besides which, *phosphoric acid*, one of the most valuable constituent elements of bones, is largely present, so also are *lime, magnecia, salts of potash* and *soda*, and *oxalic acid*, together with *carbonic* and *muriatic acids*, as well as a very sensible per centage of *volatile* and *organic matter*, the which, forming as a whole, nearly all that the wheat and most other plants require to ensure their perfection.

*Ploughing, Rolling and Harrowing.*—All grounds which may be fallowed for wheat should be deeply ploughed, say from 6 to 8 inches, (the latter the best depth) as by turning down the clover-ley or grass-sward to that depth, the seeds of grass and weeds are placed so low that they cannot germinate, and consequently, a *clean soil* is secured for the wheat plants to occupy of themselves.—Each day's ploughing should be followed the succeeding day with the *harrow*, so as to reduce all the clods to fine tilth,—where the harrow cannot effect their entire reduction, the *roller* should should be freely used, as fine tilth is indispensable to success. While the operation of ploughing may be going on, the *the eye of the master must be present* to prevent slovenly work being done by his hands.

*Preparation of the Seed.*—We are among those who believe that seed wheat should always be prepared before being sown, as we do know, from experience, *that it is a preventive of smut*. What we mean by preparation, is, that it should be *soaked* in some suitable solution, and afterwards, just before being sown, that it should be drained, and mixed with either ashes or slacked lime. Many soaks have been recommended, as *salt-brine* of such specific gravity as will enable it to float an egg or a potato—*lime-water, stale urine, a solution of copperas, a solution of saltpetre*, the ley of *wood-ashes, a solution of the Nitrate of Soda, solution of blue vitriol*, besides several others; but as *salt* is procurable by all, we think it amongst the neatest and best steeps, and equally as salutary in its effects as any other. Prior to the wheat being put into the steep, it should be washed with pure water, and then permitted to remain in the steep 12 or 24 hours, or more, before being drained. No more seed should be taken out any one day than can be sown during that day. As taken out, and the steep drained off, it must be mixed with slacked lime, or ashes, so as to separate and coat each kernel, and thus render it easy of being sown. By soaking, early germination is brought about, and an impetus imparted to the incipient stage of the growth of the plants, a thing of great value, as the earlier they become rooted the better are they prepared to resist the uprooting action of the frosts and thaws of winter and early spring.

*Mode of Sowing.*—All *soaked* seed wheat, should be buried at least 3 inches deep, and it matters not whether this be done with the plough, the cultivator, the drilling machine, or the harrow, the essential thing being, to give the seed a covering of at least 3 inches of soil. After the seed is in and the ground harrowed, *water-furrows* must be made to keep the plants dry through the winter, and then the field must be rolled across the furrows. There are two modes of sowing wheat, *by hand, and by a drilling machine*—the latter method is gaining many admirers.—For an enumeration of its ascribed advantages, see page 35, of our July number.

*Early Sowing.*—We know that there are a great many enlightened farmers who are averse from seeding wheat early, and that their objection to so doing arises from the fear which they entertain of injury from the Hessian fly, its autumnal visitation; but while we admit the force of this objection, we are disposed to think that the advantages which arise from early seeding more than counterbalance those which spring from the assigned reason given for late sowing. By late seeding, the fall attack of the fly may be avoided, but the exemption thus secured, we consider not equal to the benefits which are sure to result from an opposite course. By early sowing, the wheat plant has time allowed it to throw out its roots, and thus, to a certain extent, become secured from the effects of winter-killing, as it must be admitted, that, in proportion to its oportunities of providing itself with a series of strong vigorous roots, so will its capacity be increased of resisting the uprooting influence of the alternate freezings and thawings of winter and early spring. Again, the spring finds it, from its advanced growth, better able to resist the fly, should it be subjected to an attack at that period of the year, a thing quite probable, as it makes its appearance as well then, as in the autumn, and it is a well established fact, that the more advanced the plant may be at the time of the attack, the better able is it to resist the ravages of the insect. But there is another advantage resulting from early sowing, which is forceful and should have weight. *Early sown grain, matures earlier*, is sooner ready to be harvested, and every one is aware, how important it is at the period of *ripening* to be able to anticipate the warm suns and frequent rains, only a few days, in the latter part of June and beginning of July. Though the cause of the *Rust*,—that destroying enemy of the wheat crop—is unknown, still its attacks have been noticed to follow the rains at the juncture of time to which we have alluded, and may, therefore, be presumed to be incident to the peculiar condition of the atmosphere produced by these causes,—moisture, acted upon by intense heat, superinducing an unnatural activity in the *sap*, and a consequent flow upwards of so powerful a character as to be beyond the resistance, in their then brittle state of the straw, the which, yielding to the pressure, becomes split, so that the juice which, under a more auspicious state of things would have been appropriated to the perfection of the grain, is exuded through the cracks, and thus not only abstracted, but becoming oxidized by the atmosphere, it may be, is the cause of the disease. For these reasons we would commence seeding on the 15th of the month.

*Quantity of Seed per Acre.*—If sown broadcast 2 bushels of seed is necessary—if *drilled in by a machine*, 5 pecks is ample—so that, in a field of 100 acres 75 bushels of seed will be saved.

## Sowing Grass Seeds in Autumn.

In our intercourse among the farmers of Ohio we find very general complaint of the frequent failure of grass and clover seed when sown in the usual way during winter or spring upon grain crops. As one remedy for this evil, we have several times suggested seeding in the fall with grass or clover alone; and if any of our readers have fairly tried this method we should be pleased to learn the result. We advise others to try the experiment the present fall.

The following remarks we find over the signature of "a Practical Farmer" in a late number of the Germantown (Pa.,) Telegraph.

In many sections of our country, the practice of sowing grass seed in autumn, is becoming quite common.—September is preferred for this purpose, in the Northern States, although some defer sowing till October, which, however, is generally considered too late, as the state of the atmosphere and soil is there, at that season, too algid, and too nearly bordering upon the confines of snow.—Still, even there, there are many who prefer the "old way," and sow their grass seed in the month of March or April; but I think no one who has carefully examined the subject will long continue in a cause so utterly repugnant to every principle of correct farming, unless there are causes of a local nature to influence his judgment in the premises.

There can, however, be no doubt, that unfavorable results often issue from both practices; for, should the weather prove unfavorable, and the condition of the soil be inauspicious, a failure is almost inevitable in either case. By sowing in the spring, both time and expense is economised to a certain extent;—the ground is then in a state of preparation, in good tilth, and the seed can be sown with little additional trouble; but the growth of the plants—usually fragile and tender, is yet greatly retarded by the emasculating influences which result from the growth of the standard crop. Instead of enjoying, to their full extent, the fructifying influences of the agents on which the health and increment of every vegetable production principally depends, the young grass plants are nearly deprived, not only of the solar heat, but of the rain and dew. If the soil be affluent in vegetative powers, the more vigorous growth of the grain soon effectually secludes them from all these fructifying influences—leaving them to maintain a precarious existence, and to struggle up amid a forest of luxurious vegetation, which, from its more rapid growth, soon monopolises not only the atmospheric supplies of nutrition, but the resources of the soil as well.

We have some grass sown with wheat, oats, barley, peas, &c., which looked strong and vigorous at the commencement of the season, but which become stultified—withered away, and wholly disappeared before the grains were ripe enough to cut.

Most of the cereal grains, the reader is probably well aware are gross, or strong feeders—they exhaust, consequently, in a short time, comparatively speaking, all the immediately appropriable aliment contained in the soil—leaving the infant grasses to subsist on the innutritious and often scanty residuum remaining after they have perfected their growth; or to be sustained and nourished into vigor by a fresh, and perhaps, expensive application of some stimulating manure. The following able observations, which I take from the *New England Farmer*, vol. II, p. 322, may not be unworthy of regard:—

"The result of sowing grain and grass is to injure both crops, and very often to lose the grass entirely.—Such loss and vexation may be avoided by sowing the grain alone, early in the spring, and such manure as has been alloted to the field; and as soon in August, after the crop of grain has been housed, to plow the stubble in, turning a good furrow, that the stubble may have a chance to moulder away, which the showers usually taking place about that time, and the heat of the atmosphere will generally bring about in the course of twelve or fifteen days; before the end of August the field should be cross-plowed, the grass seed sowed on the furrow, harrowed, and rolled. It is of great importance in this part of the process, to avoid any unnecessary delay, and therefore it is quite unnecessary to put in the grass seeds, even if the weather should happen to be dry at the time; they will lay safe in the soil and be ready to improve the benefit of the first showers, when the grass will soon make its appearance, and generally make a good progress before winter sets in. If the weather should prove favorable, nothing more is wanting to secure a good and lasting field of grass, than to draw the roller over it in the spring, as soon as the frost gets out of the ground. This will settle the roots of the young grass, which the frost always heaves up, and which, without rolling, would be likely to be injured by the sun and wind. In case that the winter should prove changeable, with cold turns and successive and hard rains, the grass will be exposed to suffer, by being killed in spots, perhaps some of it washed away, in such cases it is needful, as soon as the frost is out of the ground, and it is not wet, to harrow the field over, and sow some fresh seed."

Young, in his "*Farmer's Calendar*," for August, says:

"This is the best season in the year for laying down land in grass; and no other is admissible for it on strong, wet or heavy soils. Spring sowing, with grains, may succeed, and do often, but that they are hazardous, I know from forty years experience. In laying down land to grass, it is important to sow only pure and clean seeds; much of the seed that is sold, is filled with impure seeds, and these prove fatal to the crop, and injurious to the land. Farmers should sow a patch of land expressly for seed, and keep it entirely free from weeds, or they should be very careful in purchasing of the dealers. If farmers would steadily refuse to buy anything but *pure* seeds, dealers would in a short time supply themselves with only a good article.

"There is a great difference of opinion," says our author, "in regard to the quantity of seed to be sown. Sir John Sinclair says it is a great error in laying down land to grass, to sow an insufficient quantity of seed. The quantity which may be most profitable to sow on a given surface of soil, may be best determined by experiment. It is earnestly desired, therefore, that farmers hand in their own practice and experience on this point for publication. By so doing we may arrive at some rule which can be relied on."

The most successful efforts that have been made in stacking down lands to grass which have fallen under my observation, were made in the fall, and without the emasculating effects of a previous crop of grain. Potato lands, well manured, and carefully wed, constitute a most excellent lodgment for all descriptions of grass seed. As potatoes, with a slight dressing to stimulate and sustain its growth during the incipient stages of its development, is considered an improving one, the sowing of clover, timothy, and red-top, after harvest, is almost invariably attended with success. Will not some of the readers of the *Telegraph* have the goodness to publish through its columns their views and experience touching this important subject?

Subsoil Plowing.—Clark Beardsley, of Avon, Mich., states in the Michigan Farmer, that he harvested wheat on *ten acres* of good wheat land in 1844, which had been much run for 17 years, and the product was only eighty-five bushels The soil was clay and was full of "foul stuff." The next year he subsoiled it with a span of horses and two yoke of oxen, by once plowing, and thoroughly subdued the foul stuff, and obtained in 1846, from

the same ten acres of land, over three hundred bushels of wheat. And yet we know a farmer of large and ample means, who admits that the subsoil is more fertile for wheat than the upper soil, who says he "cannot afford" to use the subsoil plow!

### A Fruit-drying House.

Dried fruits, (especially apples) are an important market staple with some farmers in Ohio, and we believe would be so with many more if the best mode of drying was generally known. We trust therefore that we shall render an acceptable service to our readers at this time by publishing the following simple and excellent plan for constructing a kiln or dry house, furnished by an esteemed correspondent, who has our thanks for this timely favor.—Ed.

*Tremont, Clark Co. O., Sept.* 9, 1848.

Mr. Bateham:—A short time ago I contemplated writing to you for information through the Cultivator as to the best mode of constructing a kiln or dry-house for drying apples, but finding there would not be time for an answer to be obtained before I should need to build one, I immediately went to work to devise a plan and construct a house according to my own notions, which on trial, has succeeded entirely beyond my expectations; and a number of my neighbors are pulling down their old log dry-houses and building new ones after my plan. I am therefore induced to send a description of it for the benefit of the readers of the Cultivator; and at the same time I would request that if any one can give a better plan he will do so.

This kiln is small and compact, is easily managed and requires less fuel for the work performed than any other style of kiln I ever saw. If rightly tended it will yield six bushels of dried fruit each morning—(if made of larger size of course the quantity will be greater,) it holds eighteen bushels of fresh cut fruit, and only requires the fire to be renewed four or five times in the 24 hours to complete the drying: it also dries all the shelves equally, so that the fruit can be all taken out at one time.

*The Plan* of my house is as follows:—Dimensions six feet by ten (outside the wall) height of front wall say thirteen feet, of back wall ten feet, with a shed roof.—The furnace is fifteen inches in height and width, and extends from the arch in the middle of the end wall the length of the house inside, [built of brick, covered with flat stones we presume, Ed.] and is plastered 1½ inches thick on top, to prevent danger of fire from cracks. On each side of the furnace a flue returns (horizontally,) to the chimney, which is carried up inside the wall directly over the arch. In the side walls of the house nine pairs of cross-pieces, of 2½ by 3 inch scantling, are set three bricks apart, and six inches from the end walls, on which the baskets or drawers are to slide. In the upper corner of each gable end wall is a window or opening six inches square, to let the steam pass off. The walls are plastered inside, and also the roof, by lathing on the underside of the rafters. The doorway is in the middle of the front wall, and is five feet high by seven feet wide; or rather it has two doors of 3½ by 5 feet. In front of the door way the cross pieces are movable, (resting on those fixed in the walls) for the convenience of putting in and taking out the drawers. The drawers, or baskets are four feet long and two wide, so that each tier contains four baskets. They are made of laths 1½ inches wide, nailed on three crosspieces 1½ inches square with 4 d nails. Outside the door is a platform to stand upon when arranging the fruit, from which the upper shelf can be reached.—(If thought best the door way can be made the full height of the range of shelves, then you have a complete bureau kiln, with every drawer accessible from the outside.)

*The Materials* required for this house, are 3500 brick, 12 bushels lime, (unslacked,) 1000 laths, 252 feet (running measure) scantling, 500 shingles, 8 lbs. 4 d nails, 100 feet of plank and doorframe stuff. The whole cost in this place is only 25 or 30 dollars and any farmer of common ingenuity can do all the work except the bricklaying.

Respectfully yours, &c.,
Silas H. Gard.

Remarks.—Our readers will discover that several minor particulars are omitted in the foregoing description—such as the size and mode of constructing the flues, the height of space between the furnace and the first tier of drawers &c. (From a rough diagram sent us, we should judge the latter to be about 18 inches,) but any sensible man can decide how to arrange these matters, after having the general plan described as above.—Ed.

### That Subsoil Plow.

Mr. Editor:—Your answer to my inquiry on the 117th page of the O. Cultivator, vol. 4, will not remedy the difficulty of which I complain. I infer from what you say in your answer, that the plows we use, are identically the same. You say "all that we have found necessary in regulating the draft of the subsoil plow when used with two horses, is, to set the clevice as far to the one side as it will go." I tried setting the clevis to one side, when subsoiling last spring, *but it would'nt do.* I did'nt try bolting on a piece of something as suggested, therefore, can't say practically the effect it would have, but I believe it would do more towards remedying the difficulty than setting the clevis to one side. The draft of a common plow is that of a right line drawn from a point midway between the horses heads passing through the centre of the double-tree, sheath and handles of the plow; whilst the draft of the subsoil plow is that of right line drawn from a point between the furrow horse' ears passing to the left of the centre of the doubletree, through the sheath to a point near the left handle, missing the plowman in the latter case, whilst it passes though him in the former, because the plowman walks in the furrow when he holds the soil plow, but on the unplowed land when he holds the subsoil plow. I speak of left handed plows.

Again. To make the draft of the subsoil plow the same as that of the soil plow, it will be necessary for the furrow horse to walk on the inverted furrow, and not in the excavated one, as he really does.

I've reflected much on this matter for the last six months, and have come to the conclusion that there is a radical defect in the construction of the plow, which to obviate, there must be a new construction in such a form that the difficulty will be fully met and dispensed with, else there will always be a reluctance on the part of the farmer, to lay hold of such a necessary and essential agricultural improvement. I've conversed with our best plow makers on this subject, who say that to meet the objection it must be stocked as much, perhaps more, "out of land" as they term it, as the soil plow is "into land." Let the cause be what it may, the plow does not run right either for man or horse. If you think the above would draw out any information on this subject, it's at your service, if not, throw it under the table.

*Green co., O., Aug.* 1848. J. C. G.

N. B. The plow to which I refer is sold in Cincinnati.

### Rohan Potatoes.

Mr. Editor:—Being in conversation with one of my neighbors one day since I inquired of you about the rohan potatoe for table use and stock &c., he informed me that he had raised the rohan potatoe last year and considers it for table use, the poorest potatoe he ever tasted. He says, when boiled they are as sad as boild dough, instead of being dry and mealy, like the Meshanoc or Mercer potatoe. They are also very prolific, and excellent for stock. They are very liable to take the rot, the most so of any potatoe, except the Meshanoc. Such is his experience with the potatoe he got for the rohan.

J. C. G.

### Disease of Wild Plums--Inquiry.

Mr. Editor:—There are two wild plum trees, about one foot in diameter, growing on the north end of the farm, which every spring are covered with bloom, as white as the driven snow, bidding fair to bear a bounteous load of plums, but they cast their fruit when it has attained the size of a peach kernel– some few grew to their natural size, in the form of a puff ball. Each year producing the same result. Several things were tried to effect a remedy, on the suggestion of others, (to wit) ashes, lime; scarrifying, and boreing a hole through it, the two latter to let out the gum which was said to be the cause, still no change for the better. At length, some said driving them full of *old nails* was all they wanted, which was done, when Lo! there came perfect fruit.

*Query.*—Was not the ground destitute of that mineral food which the nails supplied? J. C. G.

Remarks.—The cause of premature casting of fruit by plum and other trees is usually attributed to insects—and this is doubtless the true cause of that swelling up into a "puff ball" form which is sometimes seen on wild plum trees, resembling the "apples" as they are called on oak and other forest trees, which all admit are the work of insects. Still it is very possible that some defect of the soil, was the main cause of the shedding of the fruit in the case referred to above; and if so the efficacy of the remedy applied may be accounted for upon the principles of *special manures* as several times alluded to in our columns of late; particularly the importance of *iron* in some of its forms in the soil for fruit trees.

We would suggest, however, that many more and longer continued experiments are wanted, before we can arrive at certain conclusions on this subject. Difference in season, or some other cause may have produced the favorable result described by our correspondent.—Ed.

A rich little fruit farm.—On the banks of the Ohio, 10 miles above Cincinnati, Mr. Joseph Clark has a farm of five acres on which he cultivates 112 kinds of peaches, 75 of which are in bearing, some of the most vigorous of the trees having not less than nine or ten bushels on each. His experiment is a new one, and this season he has had an abundant supply ripening in succession since the 15th of July. On this small piece of ground Mr. Clark has also 83 varieties of plums, 33 of which are in bearing, 115 varieties of pears, 112 of apples, 60 of cherries, 15 of nectarines, 12 of apricots, 4 of figs, 30 of grapes, 4 of strawberries including the new Falstoff variety. Mr. Clark has affected all this in about 4 years.—*Cin. Gazette.*

Another fruit farm.—A correspondent of the Portland Advertiser, having read the above notice, furnishes the following account of a similar farm in the vicinity of Portland, Maine.

"Few of your readers know that within about a mile of your office, at Grove Cottage, there is a fruit orchard of the same size as that described on the Ohio, viz: five acres, which contains 76 varieties of pears, 104 of apples, 43 of plums, 20 of cherries, 10 of grapes 6 of currants, 10 of gooseberries, 4 of raspberries, including the very productive Canada Black, which is a variety of the Thimble-berry. Also ornamental trees and shrubbery, too numerous to particularize.

These trees are the work of a few years, just beginning to be productive, and excepting the peach, are as thrifty and handsome as any climate can produce."

### Use of Straw and Litter on Grass Lands.

The following extract from the Address of Judge Newton was not given in its place in our last paper, for the reason that as it relates to a subject of much importance and one that has not been before discussed in our colums, we were desirous of publishing it in such a connection as would make it more generally read and understood:

"In clearing your lands originally, as little of the small particles should be gathered and burned as possible to enable you to get in your crop, but should as near as may be scattered over the ground and be permitted to decay there. If your land is designed for pasture, no more of the timber, after it is fallen, need or should be taken from the ground, than will enable your animals to pass over it.

All the rubbish about your house or barn should be carefully preserved, gathered and spread over your fields or about the roots of your fruit trees. If it is not appropriate for your meadow and plow ground, scatter it upon your pasture.

All the branches pruned from your orchards, scattered upon your pasture fields, or cut into small pieces and burned around the fruit trees, instead of putting them into piles and furnishing a harbor for insects to annoy you. It will richly repay you for your toil. If you doubt it, look to your forests and see the effect there; look to the small branches of trees upon your fields and see how much earlier the grass will start around them, than away from them. If stones are necessary to be removed from your meadows or plow fields, strew them over your pasture, each will operate as a fertilizer. If you wish again to remove them, it is very little more trouble than to take them from a pile. Your swamps may furnish you with a most valuable article that may be mixed with your barnyard manure, and used to great advantage. Cinders from shops or furnaces, leached ashes, tan bark, saw dust, shavings from joiner's shops, and straw, may be scattered over your fields. Corn-stalks that your cattle leave in the winter, should remain upon the land or be strewed over your plow fields, instead of being gathered and burned, as is the practice of many farmers; and indeed almost any thing taken from the bowels of the earth, or from its surface, and placed in a new position, is highly beneficial.

In the fall of the year, select a poor spot in your meadow, and spread your flax over it, in order to prepare it for use, and observe the effect it will have upon the grass. More than double will grow where the flax is than would without it. My object is to speak of things and treat upon subjects within the power and comprehension of all farmers, they will be likely to observe and reflect upon.

It is a natural law, that whatever is made of the earth, or springs from it, returns to it; and the great art of the husbandman is to learn how, when, and where, to apply it. It is a great mistake to suppose that the surface of your plow fields should be as clear of vegetable matter as possible. The more you have, the better, if you can conduct the plow; for it keeps the land light and prevents it from packing so closely as to prevent your plants from taking root."

The foregoing remarks of Judge Newton we believe, were suggested by his own personal observations and experience; and almost every intelligent farmer can call to mind some facts or observations in corroboration of the theory suggested by him—namely, that a thin covering of straw or other litter, will greatly promote the growth of grass in meadows or pastures.

On first hearing these views expressed by Judge N., we asked him if he had not read something from English publications on the practice of "Gurneyism," as it is there called. He informed us he had not. We then promised to give in the columns of the Cultivator, an abstract of Mr. Gurney's practice, and he would see how nearly it agrees with his observations. We copy the fol-

lowing from Colman's European Agriculture, part VIII.

"Some expriments have been made in Cornwall, with top-dressing land with straw, which I refer to, as at least highly curious; and which deserve notice, as possible to lead to most important practical results. They rest upon highly respectable authority. The subject has been frequently referred to in the public papers, but a detailed statement has been given by the secretary of the Cornwall Experimental Club, and published in a late Journal of the Royal Agricultural Society, from which I shall abridge the account.

*Fibrous Covering, or Gurneyism.*—Mr. G. Gurney observed that, "if a bush or other fibrous matter were left lying in a field of grass, the vegetation beneath it would soon be observed to be finer or fresher than that around it. This was a fact known to every one, but the agency by which this increase of growth was brought about, evidently involving some great and important but unknown principle, had never been investigated. Flags, rushes, straw, bushes, or, in short, any fibrous covering, would produce a similar effect. Reeds, or wheaten straw, applied over grass, at the rate of about a load to a load and a half per acre, would, in a short time, increase the quantity of grass to an incredible extent. The various grasses under it would be found to be healthy, and rapidly passing through the stages of maturity, some growing, some flowering, some seeding. Part of a field of grass placed under this operation for one month had increased in weight, over the remaining portion left uncovered, at the rate of nearly three to one. The green grass from the part untouched, cut at the end of the month, weighed two thousand two hundred and seven pounds per acre; that of the portion placed under the operation weighed five thousand eight hundred and seventy pounds per acre. The grass was weighed as it came from the scythe. During this period, there was not a drop of rain; and guano, nitrate of soda, lime, shell-sand, wood-ashes, and other manures, tried against it, possibly from the drought, produced, during this period, no very visible action. In this experiment, the fibrous covering was laid on the 15th of April, and the grass cut and weighed the 30th of May. Half of a hay-field was cevered on the 2d of May; and a month after, I had cut and weighed, respectively, the portions of the field covered and uncovered, and found that the one weighed three thousand four hundred and sixty pounds per acre, whilst the other weighed only nine hundred and seventy pounds. As to the length of the grasses in the respective pieces, the trefoil in one case measured three and one half inches, whilst in the other it only measured an inch; clover six inches, in the other one and one half." He found, on making the two samples of grass into hay, that the proportionate loss of weight was the same in each parcel, and the difference would be, that in the one case he should get three tons to an acre, and in the other only one. Another most important circumstance in the case was, that when "a certain quantity of stall dung would double the quantity of grass in a given time, when laid on in the usual way, that it would increase it six times, when properly treated with fibrous covering."

These are certainly very curious experiments, and they have been repeated successfully by various individuals. "For an individual to satisfy himself, a bundle of straw, say forty pounds, strewed lightly over two or three roods of growing grass, would in a very short time show the effect, when raked off. In the experiments made, all gave uniform results, when conducted fairly. Some used too much covering, but *generally too little*. All these experiments showed that the action was general; that the difference in increase of growth, in a given time, was in proportion to the natural fertility of the soil."

"The practical instructions for the use of fibrous covering are few, but essential to profitable results. Straw of wheat, oats, or rushes, is to be lightly and evenly laid over growing grass, in the portion of about a ton to a ton and a half per acre. At the end of a fortnight, it must be raked up in heaps like hay-cocks, the grass eaten off by cattle, and the covering again relaid. This is necessary in the growing season, otherwise the herbage will grow through, by which the action will cease; the grass will also become entangled with the covering. If the land is good, the grass may generally be eaten off by cattle before the covering is relaid; if not, at the end of the next fortnight (more or less depending on the richness of the land, the season, and the weather,) it should be done, and the covering relaid again; and repeated at about these periods through the season. If straw be the material used, it will last through the whole summer. In the autumn it is the practice to rake it off when dry, carry it away, and stack it for winter litter. Ground under the action of fibrous covering, we find from our returns, will keep three times the quantity of cattle as ground not so treated. This experience seems in keeping with our experiments on weight and measure, of the produce thus obtained."

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Whatever busies the mind without corrupting it, has at least this use, that it rescues the day from idleness, and he that is never idle will not often be vicious.

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At Chillicothe, we notice a call for a public meeting for the purpose of forming a Horticultural Society.

# OHIO CULTIVATOR.

**COLUMBUS, OHIO, SEPTEMBER 15, 1848.**


The Weather and the Crops.—For a month past the weather has been favorable on the whole for maturing the corn and other crops, though rather too dry in most parts of late, for convenience in sowing wheat, especially on hard clay lands. We think, however, that generally speaking the seed will be as well got in as usual. The corn crop bids fair to ripen in good season and the yield will be large. Potatoes are a very light crop and somewhat damaged by the rot, but the injury is less general and extensive than it was thought would be the case a month since. Buckwheat is doing well. Turnips need more rain. Clover seed we believe promises fair.

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Tall Corn.—If any of our readers in this county want to see a good specimen of *yankee* farming, we ask them to look at a cornfield belonging to Mr. P. Curtis in Clinton tp., on the Worthington road. The stalks are not only tall, but very numerous, and so well loaded that we promise 100 bushels of corn per acre on part of the field. Deep plowing, with manuring and close planting did that.

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The Mowing Machine (Ketcham's) was exhibited at Buffalo in operation. We shall speak of it, with other things in our next.

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Fruit Trees from Rochester.—We design to order a quantity of dwarf pear and other choice fruit trees from Mt. Hope Nurseries, at Rochester, in a short time, for several of our friends and neighbors. Others wishing us to order for them will please notify us soon.

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"The Plow the Loom and the Anvil."—We see this new Journal highly spoken of in our exchanges, but have not yet seen a copy—our friend Skinner having omitted to put us on his exchange list.

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Nursery Stock for sale at Dayton.—Mr. William Jenison, a well known florist and naturalist at Dayton, informs us that he will sell off his entire stock of green house plants, flowering shrubs and young fruit trees, at a bargain to any person desirous of continuing the business. He intends to devote most of his time for the present to the collection and preparation of entomological cabinets; and he is prepared to furnish schools, colleges, or individuals with large or small collections of insects correctly named and classified, on very moderate terms.

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At Zanesville, we perceive by the papers they have weekly meetings of a "horticultural committee," at which many specimens of choice fruit, and vegetables are exhibited and increased interest is being awakened thereby in horticultural pursuits.

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At Marietta several horticultural meetings and exhibitions have been held, and measures taken to send delegates to the Fruit Convention at Columbus.

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Errors Corrected.—We are requested to correct through our columns an error in the last annual report of the Ohio State Board of Agriculture; on p. 85, (from Shelby county) 2d. paragraph speaking of his crop of wheat, Mr. Leckey is made to say he harvested "eight hundred and forty two and two-thirds dozens" from 2½ acres. It should read *eighty-four and two-thirds*, &c., then the whole statement will be consistent and intelligible. Another error is in the 10th paragraph, 4th line from the bottom—the word 'desire" should be *deserve*.

We will endeavor to see that the next annual report of the Board is correctly printed. We were absent from town when it was done last winter.

## The Great Fair at Buffalo.

The high expectations which had been excited in the minds of the tens of thousands of persons, who attended the N. Y. State Fair just held at Buffalo, were not at all disappointed. It was truly a great and beautiful exhibition of the productive wealth and mechanical skill of the country, and its effects cannot fail to be highly salutary upon the minds of the immense multitude of farmers and others who were present.

The weather was highly favorable, and the arrangements for the exhibition and for the accommodation of visitors were so complete and extensive that the whole affair passed off most pleasantly—giving less occasion for individual grievances or complaints than on any former occasion of the kind. The exhibition, too, although less extensive in some of its departments, or less perfect in quality than some former exhibitions, was on the whole more complete and extensive, and consequently more attractive and useful than any previous one. The attendance of spectators, also, was somewhat larger than at any previous show, although it is difficult to judge with accuracy on this point where the throng is commonly so very great. The number of persons (besides citizens of Buffalo) in attendance at the Fair, was estimated at from *forty* to *fifty thousand!* A considerable portion of these were from Ohio and other western States, and from Canada. A goodly number of animals, fruits and other articles for exhibition were also present from Ohio and other western States and Canada. We rejoice at this, and we hope that our *Ohio farmers* especially, of whom hundreds were present, have come home with a determination to do all in their power to awaken such a spirit of improvement among their neighbors and throughout our state as will be the means in a few years of producing an Ohio State Fair as creditable to our farmers and mechanics as the one they have just witnessed is to those of New York. Why should this not be done? We have all the requisite *materials*. Nothing is wanting but the *spirit*,

We have not sufficient space in this number to speak in detail of the different departments of the exhibition, and shall therefore merely glance at a few of its leading features, postponing particulars for another occasion. Our readers will have the full benefit of our observations in the course of time.

*The Fruit Convention* is first in the order of time. It commenced on the 1st., four days before the Fair. We arrived on the morning of the 2d., and found a goodly number of nurserymen and fruit growers assembled, with a large collection of fruits.

The following gentlemen were appointed officers of the Convention:

*President*—DAVID THOMAS, N. Y.

*Vice Presidents.*

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| Wm. R. Coppock, N. Y. | Henry H. Coit, Ohio. |
| J. W. Hayes, N. J., | J. D. G. Nelson, Ind. |
| A. T. Prouty, Mich., | J. A. Kennicott, Ill., |
| S. P. Beecher, Wis., | Thomas Allen, Mo., |
| Dr. C. Beadle, C. W., | W. J. Hayes, C. E. |

*Secretaries*—Dr. Herman Wendell, Albany, N. Y.; Wm. R Prince, N. Y.; C. M. Hovey, Mass.

*Business Committee.*

John J. Thomas, Macedon, N. Y.
F. R. Elliott, Cleveland, Ohio,
P. Barrey, Rochester, N. Y.
Benjamin Hodge. Buffalo, N. Y.
Thomas Hancock, Burlington, N. J.

Much discussion was had in relation to the different varieties of fruits brought forward for examination; and it soon became evident that the convention would fail of accomplishing as much good as had been anticipated owing to a want of proper *method* in the deliberations, and the want of experience in conventions of this kind. At one time hours would be spent in useless controversy; at another time fruits would be passed on and voted good bad or indifferent with such haste as to preclude due thought or deliberation. The consequence is, that while the published transactions of the convention contain much valuable information, they also contain much that is crude and ill digested, and some positive errors. We do not think therefore that the decisions of the convention will be generally adopted as a standard in regard to names or character of fruits.

We shall speak of this again, and give some extracts from the Report. In the mean time we hope that the fruit convention at New York City, and that of our own State at Columbus will be more successful in accomplishing the important purposes for which they are appointed.

*The Show Grounds* for the state fair were well selected, embracing a field of about 16 acres, little over a mile from the city, on Delaware street. This field was enclosed, as usual, with a tight board fence some 12 feet high, with convenient gateways for the ingress and egress of the multitude, and a numerous body of police to keep order. In front and outside the enclosure were erected a spacious "business office" and "ticket office;" next, inside was vacant ground for large machinery, such as thrashing machines, &c., where they were exhibited in operation; then we came to "mechanics hall" 150 by 170 feet, next "dairy hall" 40 by 150 feet, next "manufacturers and miscellaneous hall" 70 by 150 feet, (these buildings were made of pine boards and erected for the purpose,) next and most attractive of all was the "Horticultural tent" (known to some as the great Oberlin tent) 80 by 120 feet, next the "horse parade" consisting of a circular railing some 250 feet in diameter: back of this stood the societies tent for addresses, &c., committees and editors rooms, and refreshment rooms; then pens for sheep and swine, coops for poultry, &c.; and back of all in a grove of tall forest trees were railings and posts for cattle, finely sheltered from the sun and provided with provender, water, &c. The whole expense of fitting up the grounds, including fences buildings, &c., was stated at about $2500, and was defrayed by the citizens of Buffalo. This they could well afford to do if the amount was collected from the hotel and boarding house keepers, steam boat owners, &c., according to the amount of profit they derived from the exhibition.

The stock and other articles for exhibition were mostly got on the ground during Monday, and the forenoon of Tuesday. On Tuesday the grounds were only open to the judges and to members of the society; but these alone made a very respectable assemblage. Wednesday was the first public show day, and long will the citizens of Buffalo remember the *lively* spectacle which their streets exhibited that morning. A hive of bees when just about to swarm is the best representation we can think of. Before noon the show grounds (16 acres) seemed literally filled with human beings, and other *live stock*, and still the city and all the roads leading to and from the same were thronged with pedestrians and every kind of vehicles.

On Thursday the crowd was slightly diminished—some having gone to their homes, others to the falls, and many to the trotting races being held two miles from the city. This day the public exhibition continued—no articles being allowed to be taken off the grounds till evening. At two o'clock the ennual address by J. C. Spencer was delivered to a very large audience under the society's tent on the show ground; after which the reports of committees were read, and the out-door performances were closed.

*The Address* of Mr. Spencer is an able production, as was to be expected from the high character of the author. The introduction contains some just and beautifully expressed sentiments on agriculture, and the main part is occupied with arguments in favor of a tariff—or encouragement of home manufactures and home markets. This is designed as an offset, or reply to the address of Silas Wright read before the society last year.

We shall perhaps publish the address along with some particulars respecting the Fair in our next.

David Thomas delivered an address on horticulture on Monday evening; Gen. Dearborn of Boston delivered one on the same subject on Tuesday evening. Professor Norton delivered an address on agricultural chemistry on Wednesday evening, and Dr. Lee held forth on the same subject on Thursday forenoon in the tent on the show ground.

*A Floral Ball* and supper was held in the horticultural tent on Thursday evening for the gratification of the youthful *fair ones* of Buffalo, who had contributed so liberally towards the decoration of the tent for the Fair.

At the same time the officers and leading members of the society with many guests and visitors had a public "dinner"—or rather *supper*, for it was *ten o'clock at night*, at the American Hotel. This appears to have been quite a spirited and pleasant *finale* to the Fair. We were prevented by indisposition and the lateness of the hour from being present; but will give a report of the speeches and sentiments in our next.

### Tan Bark as Manure for Cherry Trees.

As far as our own experience and observations have gone, we have never known tan bark to operate favorably as a manure. Indeed we have always supposed that this material contained one element, *tannic acid*, which was injurious to all kinds of vegetation. It is therefore with some degree of incredulity that we copy the following extract from observations by the editor of the Boston Cultivator, who in a description of the farm of Messrs. A. D. Williams & Son, of Roxbury, gives the following account of that gentleman's managment of cherry trees:

"Spent tan, fresh from the tannery, about a horse load to each tree, once in three or four years, is used for all cherry trees without exception, and it is regarded as the best manure, reviving old decaying trees, and giving a healthy, rapid growth, to those in their prime. This tan is spread under the tree, mostly around the trunk. As an evidence that its valuable effects are not merely mechanical by retaining moisture, like any litter, on opening the tan fibrous roots of the cherry are found penetrating the tan in every direction. Some coming directly up into the tan, where it is laid above the large roots of the tree. In some places where the winds have blowed off some of the tan, numerous roots may be seen.

This opinion, so highly in favor of the use of tan as manure for the cherry, is given after many years experience and on many trees. The soil is a strong loam.

"This valuable discovery was made by some ancestor in the family, who had dug out some rocks, leaving an unsightly spot, which he filled with spent tan and earth, and some cherry trees came up there and grew with uncommon vigor. As tan, in its fresh state, is generally injurious to vegetation, we advise caution in its trial, lest the trees suffer by injudicious doses. We may use too much of a good thing."

### The Ohio Grape Crop.

The vintage on the Ohio has commenced, which will last for two or three weeks. We are glad to hear that the damage to the grape crop has proved very light, to what was feared. Many vine-dressers, who a few weeks since expected to lose two thirds of their crop, will not lose one-eighth. There are now several hundred acres in this county alone devoted to vineyards, and the amount of wine made will be quite large, for which a sure demand exists.

As the manufacture of wine from the American Grape, is becoming a very interesting business in this quarter, a desire has been expressed by many, that the Cincinnati Horticultural Society take measures to obtain an accurate estimate of the amount made, with other statistics and facts in regard to the subject.—*Cincinnati Gazette.*

In reply to the foregoing the Gazette of a subsequent date contains the following:

Messrs. Editors:—I regret to say that you are under a mistake, when you say that "the Grapes in our vicinity have not been seriously injured." My tenants about two months since confidently calculated on making 25000 gallons of Wine. But the rot came, and they have on an average lost two-thirds of their crop, and will not make more than 8,000 or 9,000 gallons. One of the vineyards, adjoining others similarly located, escaped entirely. It is worthy of note, that in general, grapes in the bottoms, or near the bottom of the hill, escaped. But our grape culture has increased so much of late years, that I presume the quantity of wine made this year, will be greater than in any former year. The fruit ripens from three weeks to a month earlier, than in some former years. In some vineyards the grapes ripen badly.—The cause is evident. In Europe, to ripen the grape well, exposure to the sun is necessary, and when about to ripen, they cut off the shoots and leaves. In our hot climate, some protection from our hot sun is necessary.—Our Germans, most generally do "just as they did in Germany." But from adherence to this rule, good sometimes arises, and there is an instance that may account for the grape rot. I believe the rot rarely occurs in a gravelly soil. On the top of the hill at Tusculem, I have seven vineyards in bearing, and six of them suffered more or less from the rot. Many of them lost more than two-thirds. Those escaped the most, where the hill was steep, and the water passed off quickly. One of them in charge of a German uncommonly dull, dug his ground "just so as he did in it Germany." He trenched the ground into beds about twelve feet wide, and raising the ground some 18 inches or two feet in the centre and sloping to the sides, where there is a gully that speedily passes off the water. He has not a rotten grape in his vineyard, which covers nearly seven acres.

We began the vintage to-day.

Yours, N. Longworth.

*September* 6, 1848.

*From the Horticulturist.*

### To prevent the "Rot" in Grapes.

Dear Sir—You will probably call to mind a conversation between us when I was at Newburgh in 1846. I laid before you an account of the disease which had then made its appearance in our native grapes,—the Isabella and Catawba. It commences about the first of July, in the form of a dark spot upon a few berries. These afterwards become entirely spoiled by the disease; and this rot spreads from berry to berry till a large part of the bunch, or, in many cases, whole bunches are entirely spoiled by it. Wet seasons, unsuitable soil, and various other causes have been assigned for it; but as yet, to my mind, no satisfactory explanation has been given.

You advised me, at that time, to apply sulphur and lime in the form of gypsum, or common ground plaster of paris; and you also advised me to use the leaves and prunings of the vines for manure.

This is the second season of my trying your advice; and as I received it with the promise of making known the results, I accordingly send you a brief statement, which I think proves that the advice was good.

I have about twenty vines of the Isabella and Catawba grape, in a full bearing state, trained on upright trellises. In the month of June, (latter part,) 1846, at the time I made the summer pruning of the vines,—cutting off the side shoots two joints above the fruit,—I opened shallow trenches, say four or five inches deep, at the roots of the vines to be pruned. As fast as the pruning was finished, the leaves and young stems cut off were laid in these treuches, *sprinkled with sufficient gypsum or plaster to whiten the foliage*, (from a pint to a quart per plant,) and the whole trodden down and buried in the trench.

As soon as the leaves fell in the autumn I repeated the process,—raking up the leaves and burying them around the roots of the vines, after dusting them over with plaster as before

In June, 1848, the present season, I repeated the same operation at the summer pruning.

Now the result is as follows:

Although the season is remarkable for the prevalence of the rot, not a berry on any of these *six vines*, so treated, is affected: the crop being, on the contrary, very good,—the fruit large and increasing in size. The vines, too, are remarkably healthy and vigorous.

On the other hand, the remaining vines, fourteen in number, are every one affected by the rot—some of them very badly; and even on those least affected, 10 per cent. of the berries are destroyed by this disease.

I ought to add that the vines of my neighbors generly are much affected by the rot this season, and that I have seen no Isabellas or Catawbas this season that surpass in appearance those on the six vines alluded to.

This "rot" is a disease that has only appeared within five years in this part of the country. At the south, I am told, it has always existed. On the Ohio, as I gather from Mr. Longworth's remarks, in your journal, it is quite troublesome in the vineyards; and it appears to be on the increase through the country generally. A remedy for this disease must be considered a public benefit, and I therefore send you the above remarks for publication, if you deem them worthy. Your friend,

*August*, 1848. A Jerseyman.

Remarks.—We thank "A Jerseyman" for his account of the apparently quite successful experiment. Our advice was based on two considerations; in the first place, we supposed that the rot might be owing to the want of some inorganic substance in the soil, necessary for the perfect maturation of the grape; and secondly, perhaps, to the use of crude animal manures. As *sulphur* and *lime* are large constituents of those volcanic soils abroad, where the grape thrives best, we recommended the use of a common substance—gypsum—likely to supply them; and as the foliage and shoots of the vine are well known to afford the most perfect food for the growth of that plant, we recommended the use of the prunings and fallen leaves, buried in the soil, for manure.

It is worth while now to repeat the experiment on a larger scale, in vineyard culture, and we accordingly recommend it again to the vine-dressers on the Ohio, with a similar request for a statement, when they are ready to "report progress."—Ed. Hort.

### What do Wheat and Corn Eat!

We eat the wheat and corn, said a little boy to his father, but *what does the wheat and corn eat?* At first we thought this was a childish question indeed, but on a little reflection we find it a wise question in a childish form, and one that cannot, in the present state of agricultural science, be so readily answered.

That the wheat and corn crop, like every other, must be sustained by certain elements, is evident to all, but what those elements are, in regard to corn at least, has not yet been ascertained.

We have several times made an abstract of the reports

lowing from Colman's European Agriculture, part VIII.

"Some expriments have been made in Cornwall, with top-dressing land with straw, which I refer to, as at least highly curious; and which deserve notice, as possible to lead to most important practical results. They rest upon highly respectable authority. The subject has been frequently referred to in the public papers, but a detailed statement has been given by the secretary of the Cornwall Experimental Club, and published in a late Journal of the Royal Agricultural Society, from which I shall abridge the account.

*Fibrous Covering, or Gurneyism.*—Mr. G. Gurney observed that, "if a bush or other fibrous matter were left lying in a field of grass, the vegetation beneath it would soon be observed to be finer or fresher than that around it. This was a fact known to every one, but the agency by which this increase of growth was brought about, evidently involving some great and important but unknown principle, had never been investigated. Flags, rushes, straw, bushes, or, in short, any fibrous covering, would produce a similar effect. Reeds, or wheaten straw, applied over grass, at the rate of about a load to a load and a half per acre, would, in a short time, increase the quantity of grass to an incredible extent. The various grasses under it would be found to be healthy, and rapidly passing through the stages of maturity, some growing, some flowering, some seeding. Part of a field of grass placed under this operation for one month had increased in weight, over the remaining portion left uncovered, at the rate of nearly three to one. The green grass from the part untouched, cut at the end of the month, weighed two thousand two hundred and seven pounds per acre; that of the portion placed under the operation weighed five thousand eight hundred and seventy pounds per acre. The grass was weighed as it came from the scythe. During this period, there was not a drop of rain; and guano, nitrate of soda, lime, shell-sand, wood-ashes, and other manures, tried against it, possibly from the drought, produced, during this period, no very visible action. In this experiment, the fibrous covering was laid on the 15th of April, and the grass cut and weighed the 30th of May. Half of a hay-field was cevered on the 2d of May; and a month after, I had cut and weighed, respectively, the portions of the field covered and uncovered, and found that the one weighed three thousand four hundred and sixty pounds per acre, whilst the other weighed only nine hundred and seventy pounds. As to the length of the grasses in the respective pieces, the trefoil in one case measured three and one half inches, whilst in the other it only measured an inch; clover six inches, in the other one and one half." He found, on making the two samples of grass into hay, that the proportionate loss of weight was the same in each parcel, and the difference would be, that in the one case he should get three tons to an acre, and in the other only one. Another most important circumstance in the case was, that when "a certain quantity of stall dung would double the quantity of grass in a given time, when laid on in the usual way, that it would increase it six times, when properly treated with fibrous covering."

These are certainly very curious experiments, and they have been repeated successfully by various individuals. "For an individual to satisfy himself, a bundle of straw, say forty pounds, strewed lightly over two or three roods of growing grass, would in a very short time show the effect, when raked off. In the experiments made, all gave uniform results, when conducted fairly. Some used too much covering, but *generally too little*. All these experiments showed that the action was general; that the difference in increase of growth, in a given time, was in proportion to the natural fertility of the soil."

"The practical instructions for the use of fibrous covering are few, but essential to profitable results. Straw of wheat, oats, or rushes, is to be lightly and evenly laid over growing grass, in the portion of about a ton to a ton and a half per acre. At the end of a fortnight, it must be raked up in heaps like hay-cocks, the grass eaten off by cattle, and the covering again relaid. This is necessary in the growing season, otherwise the herbage will grow through, by which the action will cease; the grass will also become entangled with the covering. If the land is good, the grass may generally be eaten off by cattle before the covering is relaid; if not, at the end of the next fortnight (more or less depending on the richness of the land, the season, and the weather,) it should be done, and the covering relaid again; and repeated at about these periods through the season. If straw be the material used, it will last through the whole summer. In the autumn it is the practice to rake it off when dry, carry it away, and stack it for winter litter. Ground under the action of fibrous covering, we find from our returns, will keep three times the quantity of cattle as ground not so treated. This experience seems in keeping with our experiments on weight and measure, of the produce thus obtained."

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Whatever busies the mind without corrupting it, has at least this use, that it rescues the day from idleness, and he that is never idle will not often be vicious.

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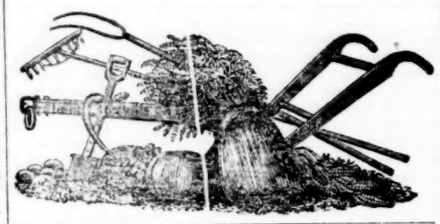
At Chillicothe, we notice a call for a public meeting for the purpose of forming a Horticultural Society.




# OHIO CULTIVATOR.

**COLUMBUS, OHIO, SEPTEMBER 15, 1848.**


The Weather and the Crops.—For a month past the weather has been favorable on the whole for maturing the corn and other crops, though rather too dry in most parts of late, for convenience in sowing wheat, especially on hard clay lands. We think, however, that generally speaking the seed will be as well got in as usual. The corn crop bids fair to ripen in good season and the yield will be large. Potatoes are a very light crop and somewhat damaged by the rot, but the injury is less general and extensive than it was thought would be the case a month since. Buckwheat is doing well. Turnips need more rain. Clover seed we believe promises fair.

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Tall Corn.—If any of our readers in this county want to see a good specimen of *yankee* farming, we ask them to look at a cornfield belonging to Mr. P. Curtis in Clinton tp., on the Worthington road. The stalks are not only tall, but very numerous, and so well loaded that we promise 100 bushels of corn per acre on part of the field. Deep plowing, with manuring and close planting did that.

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The Mowing Machine (Ketcham's) was exhibited at Buffalo in operation. We shall speak of it, with other things in our next.

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Fruit Trees from Rochester.—We design to order a quantity of dwarf pear and other choice fruit trees from Mt. Hope Nurseries, at Rochester, in a short time, for several of our friends and neighbors. Others wishing us to order for them will please notify us soon.

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"The Plow the Loom and the Anvil."—We see this new Journal highly spoken of in our exchanges, but have not yet seen a copy—our friend Skinner having omitted to put us on his exchange list.

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Nursery Stock for sale at Dayton.—Mr. William Jenison, a well known florist and naturalist at Dayton, informs us that he will sell off his entire stock of green house plants, flowering shrubs and young fruit trees, at a bargain to any person desirous of continuing the business. He intends to devote most of his time for the present to the collection and preparation of entomological cabinets; and he is prepared to furnish schools, colleges, or individuals with large or small collections of insects correctly named and classified, on very moderate terms.

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At Zanesville, we perceive by the papers they have weekly meetings of a "horticultural committee," at which many specimens of choice fruit, and vegetables are exhibited and increased interest is being awakened thereby in horticultural pursuits.

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At Marietta several horticultural meetings and exhibitions have been held, and measures taken to send delegates to the Fruit Convention at Columbus.

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Errors Corrected.—We are requested to correct through our columns an error in the last annual report of the Ohio State Board of Agriculture; on p. 85, (from Shelby county) 2d. paragraph speaking of his crop of wheat, Mr. Leckey is made to say he harvested "eight hundred and forty two and two-thirds dozens" from 2½ acres. It should read *eighty-four and two-thirds*, &c., then the whole statement will be consistent and intelligible. Another error is in the 10th paragraph, 4th line from the bottom—the word 'desire" should be *deserve*.

We will endeavor to see that the next annual report of the Board is correctly printed. We were absent from town when it was done last winter.

## The Great Fair at Buffalo.

The high expectations which had been excited in the minds of the tens of thousands of persons, who attended the N. Y. State Fair just held at Buffalo, were not at all disappointed. It was truly a great and beautiful exhibition of the productive wealth and mechanical skill of the country, and its effects cannot fail to be highly salutary upon the minds of the immense multitude of farmers and others who were present.

The weather was highly favorable, and the arrangements for the exhibition and for the accommodation of visitors were so complete and extensive that the whole affair passed off most pleasantly—giving less occasion for individual grievances or complaints than on any former occasion of the kind. The exhibition, too, although less extensive in some of its departments, or less perfect in quality than some former exhibitions, was on the whole more complete and extensive, and consequently more attractive and useful than any previous one. The attendance of spectators, also, was somewhat larger than at any previous show, although it is difficult to judge with accuracy on this point where the throng is commonly so very great. The number of persons (besides citizens of Buffalo) in attendance at the Fair, was estimated at from *forty* to *fifty thousand!* A considerable portion of these were from Ohio and other western States, and from Canada. A goodly number of animals, fruits and other articles for exhibition were also present from Ohio and other western States and Canada. We rejoice at this, and we hope that our *Ohio farmers* especially, of whom hundreds were present, have come home with a determination to do all in their power to awaken such a spirit of improvement among their neighbors and throughout our state as will be the means in a few years of producing an Ohio State Fair as creditable to our farmers and mechanics as the one they have just witnessed is to those of New York. Why should this not be done? We have all the requisite *materials*. Nothing is wanting but the *spirit*,

We have not sufficient space in this number to speak in detail of the different departments of the exhibition, and shall therefore merely glance at a few of its leading features, postponing particulars for another occasion. Our readers will have the full benefit of our observations in the course of time.

*The Fruit Convention* is first in the order of time. It commenced on the 1st., four days before the Fair. We arrived on the morning of the 2d., and found a goodly number of nurserymen and fruit growers assembled, with a large collection of fruits.

The following gentlemen were appointed officers of the Convention:

*President*—DAVID THOMAS, N. Y.

*Vice Presidents.*

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| Wm. R. Coppock, N. Y. | Henry H. Coit, Ohio. |
| J. W. Hayes, N. J., | J. D. G. Nelson, Ind. |
| A. T. Prouty, Mich., | J. A. Kennicott, Ill., |
| S. P. Beecher, Wis., | Thomas Allen, Mo., |
| Dr. C. Beadle, C. W., | W. J. Hayes, C. E. |

*Secretaries*—Dr. Herman Wendell, Albany, N. Y.; Wm. R Prince, N. Y.; C. M. Hovey, Mass.

*Business Committee.*

John J. Thomas, Macedon, N. Y.
F. R. Elliott, Cleveland, Ohio,
P. Barrey, Rochester, N. Y.
Benjamin Hodge, Buffalo, N. Y.
Thomas Hancock, Burlington, N. J.

Much discussion was had in relation to the different varieties of fruits brought forward for examination; and it soon became evident that the convention would fail of accomplishing as much good as had been anticipated owing to a want of proper *method* in the deliberations, and the want of experience in conventions of this kind. At one time hours would be spent in useless controversy; at another time fruits would be passed on and voted good bad or indifferent with such haste as to preclude due thought or deliberation. The consequence is, that while the published transactions of the convention contain much valuable information, they also contain much that is crude and ill digested, and some positive errors. We do not think therefore that the decisions of the convention will be generally adopted as a standard in regard to names or character of fruits.

We shall speak of this again, and give some extracts from the Report. In the mean time we hope that the fruit convention at New York City, and that of our own State at Columbus will be more successful in accomplishing the important purposes for which they are appointed.

*The Show Grounds* for the state fair were well selected, embracing a field of about 16 acres, little over a mile from the city, on Delaware street. This field was enclosed, as usual, with a tight board fence some 12 feet high, with convenient gateways for the ingress and egress of the multitude, and a numerous body of police to keep order. In front and outside the enclosure were erected a spacious "business office" and "ticket office;" next, inside was vacant ground for large machinery, such as thrashing machines, &c., where they were exhibited in operation; then we came to "mechanics hall" 150 by 170 feet, next "dairy hall" 40 by 150 feet, next "manufacturers and miscellaneous hall" 70 by 150 feet, (these buildings were made of pine boards and erected for the purpose,) next and most attractive of all was the "Horticultural tent" (known to some as the great Oberlin tent) 80 by 120 feet, next the "horse parade" consisting of a circular railing some 250 feet in diameter: back of this stood the societies tent for addresses, &c., committees and editors rooms, and refreshment rooms; then pens for sheep and swine, coops for poultry, &c.; and back of all in a grove of tall forest trees were railings and posts for cattle, finely sheltered from the sun and provided with provender, water, &c. The whole expense of fitting up the grounds, including fences buildings, &c., was stated at about $2500, and was defrayed by the citizens of Buffalo. This they could well afford to do if the amount was collected from the hotel and boarding house keepers, steam boat owners, &c., according to the amount of profit they derived from the exhibition.

The stock and other articles for exhibition were mostly got on the ground during Monday, and the forenoon of Tuesday. On Tuesday the grounds were only open to the judges and to members of the society; but these alone made a very respectable assemblage. Wednesday was the first public show day, and long will the citizens of Buffalo remember the *lively* spectacle which their streets exhibited that morning. A hive of bees when just about to swarm is the best representation we can think of. Before noon the show grounds (16 acres) seemed literally filled with human beings, and other *live stock*, and still the city and all the roads leading to and from the same were thronged with pedestrians and every kind of vehicles.

On Thursday the crowd was slightly diminished—some having gone to their homes, others to the falls, and many to the trotting races being held two miles from the city. This day the public exhibition continued—no articles being allowed to be taken off the grounds till evening. At two o'clock the ennual address by J. C. Spencer was delivered to a very large audience under the society's tent on the show ground; after which the reports of committees were read, and the out-door performances were closed.

*The Address* of Mr. Spencer is an able production, as was to be expected from the high character of the author. The introduction contains some just and beautifully expressed sentiments on agriculture, and the main part is occupied with arguments in favor of a tariff—or encouragement of home manufactures and home markets. This is designed as an offset, or reply to the address of Silas Wright read before the society last year.

We shall perhaps publish the address along with some particulars respecting the Fair in our next.

David Thomas delivered an address on horticulture on Monday evening; Gen. Dearborn of Boston delivered one on the same subject on Tuesday evening. Professor Norton delivered an address on agricultural chemistry on Wednesday evening, and Dr. Lee held forth on the same subject on Thursday forenoon in the tent on the show ground.

*A Floral Ball* and supper was held in the horticultural tent on Thursday evening for the gratification of the youthful *fair ones* of Buffalo, who had contributed so liberally towards the decoration of the tent for the Fair.

At the same time the officers and leading members of the society with many guests and visitors had a public "dinner"—or rather *supper*, for it was *ten o'clock at night*, at the American Hotel. This appears to have been quite a spirited and pleasant *finale* to the Fair. We were prevented by indisposition and the lateness of the hour from being present; but will give a report of the speeches and sentiments in our next.

### Tan Bark as Manure for Cherry Trees.

As far as our own experience and observations have gone, we have never known tan bark to operate favorably as a manure. Indeed we have always supposed that this material contained one element, *tannic acid*, which was injurious to all kinds of vegetation. It is therefore with some degree of incredulity that we copy the following extract from observations by the editor of the Boston Cultivator, who in a description of the farm of Messrs. A. D. Williams & Son, of Roxbury, gives the following account of that gentleman's managment of cherry trees:

"Spent tan, fresh from the tannery, about a horse load to each tree, once in three or four years, is used for all cherry trees without exception, and it is regarded as the best manure, reviving old decaying trees, and giving a healthy, rapid growth, to those in their prime. This tan is spread under the tree, mostly around the trunk. As an evidence that its valuable effects are not merely mechanical by retaining moisture, like any litter, on opening the tan fibrous roots of the cherry are found penetrating the tan in every direction. Some coming directly up into the tan, where it is laid above the large roots of the tree. In some places where the winds have blowed off some of the tan, numerous roots may be seen.

This opinion, so highly in favor of the use of tan as manure for the cherry, is given after many years experience and on many trees. The soil is a strong loam.

"This valuable discovery was made by some ancestor in the family, who had dug out some rocks, leaving an unsightly spot, which he filled with spent tan and earth, and some cherry trees came up there and grew with uncommon vigor. As tan, in its fresh state, is generally injurious to vegetation, we advise caution in its trial, lest the trees suffer by injudicious doses. We may use too much of a good thing."

### The Ohio Grape Crop.

The vintage on the Ohio has commenced, which will last for two or three weeks. We are glad to hear that the damage to the grape crop has proved very light, to what was feared. Many vine-dressers, who a few weeks since expected to lose two thirds of their crop, will not lose one-eighth. There are now several hundred acres in this county alone devoted to vineyards, and the amount of wine made will be quite large, for which a sure demand exists.

As the manufacture of wine from the American Grape, is becoming a very interesting business in this quarter, a desire has been expressed by many, that the Cincinnati Horticultural Society take measures to obtain an accurate estimate of the amount made, with other statistics and facts in regard to the subject.—*Cincinnati Gazette.*

In reply to the foregoing the Gazette of a subsequent date contains the following:

Messrs. Editors:—I regret to say that you are under a mistake, when you say that "the Grapes in our vicinity have not been seriously injured." My tenants about two months since confidently calculated on making 25000 gallons of Wine. But the rot came, and they have on an average lost two-thirds of their crop, and will not make more than 8,000 or 9,000 gallons. One of the vineyards, adjoining others similarly located, escaped entirely. It is worthy of note, that in general, grapes in the bottoms, or near the bottom of the hill, escaped. But our grape culture has increased so much of late years, that I presume the quantity of wine made this year, will be greater than in any former year. The fruit ripens from three weeks to a month earlier, than in some former years. In some vineyards the grapes ripen badly.—The cause is evident. In Europe, to ripen the grape well, exposure to the sun is necessary, and when about to ripen, they cut off the shoots and leaves. In our hot climate, some protection from our hot sun is necessary.—Our Germans, most generally do "just as they did in Germany." But from adherence to this rule, good sometimes arises, and there is an instance that may account for the grape rot. I believe the rot rarely occurs in a gravelly soil. On the top of the hill at Tusculem, I have seven vineyards in bearing, and six of them suffered more or less from the rot. Many of them lost more than two-thirds. Those escaped the most, where the hill was steep, and the water passed off quickly. One of them in charge of a German uncommonly dull, dug his ground "just so as he did in it Germany." He trenched the ground into beds about twelve feet wide, and raising the ground some 18 inches or two feet in the centre and sloping to the sides, where there is a gully that speedily passes off the water. He has not a rotten grape in his vineyard, which covers nearly seven acres.

We began the vintage to-day.

Yours, N. Longworth.

*September* 6, 1848.

*From the Horticulturist.*

### To prevent the "Rot" in Grapes.

Dear Sir—You will probably call to mind a conversation between us when I was at Newburgh in 1846. I laid before you an account of the disease which had then made its appearance in our native grapes,—the Isabella and Catawba. It commences about the first of July, in the form of a dark spot upon a few berries. These afterwards become entirely spoiled by the disease; and this rot spreads from berry to berry till a large part of the bunch, or, in many cases, whole bunches are entirely spoiled by it. Wet seasons, unsuitable soil, and various other causes have been assigned for it; but as yet, to my mind, no satisfactory explanation has been given.

You advised me, at that time, to apply sulphur and lime in the form of gypsum, or common ground plaster of paris; and you also advised me to use the leaves and prunings of the vines for manure.

This is the second season of my trying your advice; and as I received it with the promise of making known the results, I accordingly send you a brief statement, which I think proves that the advice was good.

I have about twenty vines of the Isabella and Catawba grape, in a full bearing state, trained on upright trellises. In the month of June, (latter part,) 1846, at the time I made the summer pruning of the vines,—cutting off the side shoots two joints above the fruit,—I opened shallow trenches, say four or five inches deep, at the roots of the vines to be pruned. As fast as the pruning was finished, the leaves and young stems cut off were laid in these trenches, *sprinkled with sufficient gypsum or plaster to whiten the foliage*, (from a pint to a quart per plant,) and the whole trodden down and buried in the trench.

As soon as the leaves fell in the autumn I repeated the process,—raking up the leaves and burying them around the roots of the vines, after dusting them over with plaster as before

In June, 1848, the present season, I repeated the same operation at the summer pruning.

Now the result is as follows:

Although the season is remarkable for the prevalence of the rot, not a berry on any of these *six vines*, so treated, is affected: the crop being, on the contrary, very good,—the fruit large and increasing in size. The vines, too, are remarkably healthy and vigorous.

On the other hand, the remaining vines, fourteen in number, are every one affected by the rot—some of them very badly; and even on those least affected, 10 per cent. of the berries are destroyed by this disease.

I ought to add that the vines of my neighbors generly are much affected by the rot this season, and that I have seen no Isabellas or Catawbas this season that surpass in appearance those on the six vines alluded to.

This "rot" is a disease that has only appeared within five years in this part of the country. At the south, I am told, it has always existed. On the Ohio, as I gather from Mr. Longworth's remarks, in your journal, it is quite troublesome in the vineyards; and it appears to be on the increase through the country generally. A remedy for this disease must be considered a public benefit, and I therefore send you the above remarks for publication, if you deem them worthy. Your friend,

*August*, 1848. A Jerseyman.

Remarks.—We thank "A Jerseyman" for his account of the apparently quite successful experiment. Our advice was based on two considerations; in the first place, we supposed that the rot might be owing to the want of some inorganic substance in the soil, necessary for the perfect maturation of the grape; and secondly, perhaps, to the use of crude animal manures. As *sulphur* and *lime* are large constituents of those volcanic soils abroad, where the grape thrives best, we recommended the use of a common substance—gypsum—likely to supply them; and as the foliage and shoots of the vine are well known to afford the most perfect food for the growth of that plant, we recommended the use of the prunings and fallen leaves, buried in the soil, for manure.

It is worth while now to repeat the experiment on a larger scale, in vineyard culture, and we accordingly recommend it again to the vine-dressers on the Ohio, with a similar request for a statement, when they are ready to "report progress."—Ed. Hort.

### What do Wheat and Corn Eat?

We eat the wheat and corn, said a little boy to his father, but *what does the wheat and corn eat?* At first we thought this was a childish question indeed, but on a little reflection we find it a wise question in a childish form, and one that cannot, in the present state of agricultural science, be so readily answered.

That the wheat and corn crop, like every other, must be sustained by certain elements, is evident to all, but what those elements are, in regard to corn at least, has not yet been ascertained.

We have several times made an abstract of the reports

which different chemists have given of the analysis of wheat, in their researches, in regard to the ingredients of this valuable grain. At the risk of using a repetition, though we hope not a vain repetition, we shall again give some statements on the subject.

The Royal Agricultural Society, of England, having funds sufficient for the purpose, employ chemists, from time to time, to analyze crops, soils, manures, &c. &c.—Some time since they employed Mr. Way, an eminent chemist, in this business. The question submitted to him, was, in substance, what inorganic material does an average crop of wheat take from the land? Or, in the more simple language of the child, *what does the wheat eat?*

After analyzing about fifty specimens, of different sorts of wheat, he found that what might be called an average crop, took from the land the following: 84 lbs. of silica (flint), 2 lbs. of phosphoric acid, 4 lbs. of sulphuric acid, 8 lbs. of lime, 6 lbs. of magnesia, 1 lb. of peroxide of iron, 23 lbs. of potash, 1½ lb. of soda. These are the inorganic substances; or, in other words, the mineral substances which the "*wheat eats;*" and as we eat the wheat, these are the mineral matters which we eat, though they are so combined as to become palatable food, and not *dust* to our mouths.

Well, if this is what the wheat eats, it is important that every field of wheat that we sow, should have enough to eat.

The greater part of the above ingredients, you will see, is flint, which gives to straw and the coat of the grain, its peculiar gloss and durability. The phosphoric acid and the alkalies are supplied by manures of different kinds. Bone dust, for instance, being made or obtained by animals that eat grain or something that contains it, will, if applied to the crop, supply it again with phosphoric acid. Ashes will afford the potash. Plaster affords the lime—and the soil generally affords the silica or flinty matter; or it may be taken from the ashes of plants.

But besides these mineral or inorganic matters, wheat eats what are called organized substances, or such matters as have been a part and parcel of some organized being, either of the animal or vegetable kingdom. The principal of these are carbon (or charcoal) and nitrogen. These are obtained from animal or vegetable susbstances applied as manure. These organic substances, when the plant is burned, fly off into the air in the form of smoke and gases.

What does the corn eat? Here we are not able to answer so definitely, because there has not as yet been so complete and thorough analysis made of Indian corn as of wheat. We mean, of the stalk, leaves, roots, husks, kernel, cob and all. It is evident, however, that it contains as many kinds of inorganic or mineral matter as wheat, but the proportions must vary from them essentially.

It is also evident that it contains a greater proportion of organic matter than the wheat does. Its body is larger—stem larger and more filled with carbonaceous matter—its leaves vastly larger—its roots more spreading and extensive, and the cob also containing much carbonaceous and alkaline matter. Hence one reason why it bears high manuring with animal matters, so much better than wheat. Still, no accurate analysis has yet been made, by which we are informed how much it *eats*—or, in other words, what amount of inorganic substances an average crop of Indian corn takes from the land.

If any of you ascertain soon, we should be happy to hear from you.—*Maine Farmer.*

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## FOURTH ANNUAL FAIR OF THE COLUMBUS HORTICULTURAL SOCIETY.

The Fourth Annual Exhibition of the Columbus Horticultural Society was held in the Representatives' Hall in the State Capitol, on Tuesday and wednesday, the 5th and 6th days of Sept., 1848.

The articles presented for exhibition are as follows:

By Mr. LAFAYETTE LAZELL.—103 varieties of *Apples*, as follows: Yellow Siberian Crab, Sykehouse Russet, Black Gilliflower, Grindstone, Early Nonpareil, Polecat, Belmont Red Sweeting, Rhode Island Greening, Esopus Spitzenberg, Hampshire Greening, Picket's Sweeting, Atkinson's Genesee, Milan, Willow Twig, Golden Ball, Acid Sweet, English Red Streak, Smokehouse Vandevere, Ortley, Lady's Finger, Blanton's Large Red, Pennock, Red Winter, Danver's Winter Sweet, Crimson Queening, Columbian Russet, Aunt's Large Red, Drap D'or, Wellington, Amor Golden Pippin, Monstrous Pippin, Golden Gage, Black Pippin, St. Lawrence, Kenrick's Red Autumn, Menagerie, Tallman's Sweeting, Maidens Blush, Triangle Gravenstein, Pownal Spitzenberg, Beachemwell Seedling, Golden Russett, Fameuse, American Nonpareil, Old Nonpareil, Carthouse, Bourassa, Crow's Egg, American Wine, Williams' Favorite, Virginia Greening, Baldwin, Killiam Hill, Fallawater, English Rambo. Pittstown Pippin, White Winter Calville, Rosenhigher, Craam, Golden Harvey, Federal Pearmain, Rambo, Early Yellow, Jonathan, Yellow Newtown Pippin, Honey Greening, Fall Pippin, Orndoff, Lady Apple. Swaar, French Rheinette, Kelley's Favorite, Monstrous Bellefleur, Early York, Dominee, Yellow Bellefleur, Patch Pippin, Roxbury Russet, Bower's Imperial Russet, Bienheim Pippin, Pryer's Red, Scolloped Gilliflower, Yellow Ingestrie, Minchal Crab, Bullock's Pippin, Italian Red, Blue Pearmain, Cooper, Rainhart, Wine Sap, Bean, English Wine, Gardner Sweeting, Edington, Vermont Nonpareil, Hubbardson Nonsuch, Corlie's Sweeting, Mammoth Greening, Hagloe Crab, Green Seek-no-further, Waxen or Belmont, King Phillip, Surprise.

*Pears*—24 varieties, as follows: Seckle, Capiaumont, Doyene D'ete, Bazi Vaet, Ratan, Wilkinson, Paird' Anna, Cumberland, Beuri d' Aremburgh, Duches d' Angouleme, Bergamot d' Sowlere, Spoolburgh, Spanish Bonchretien, Henry IV, Delbuque, Buerre, Beauchamps, Brown, Burre, Louis, White Doyenne, Fulton, Amanda, Double, Fortune Corter, Peer, Palien.

By Dr. A. H. LAZELL—*Apples:* Cherry Crab, Maiden's Blush, Waxen, Hubbardson Nonsuch, Williams' Favorite. *Pear:* Seckel. *Vegetables:* Six varieties of Tomatoes, new seedling Potato, Meshannock Potato, Cauliflower, three varieties of Cabbage, Rice Corn, Lima Beans.

From Mrs. BELA LATHAM—*Apples:* Red Siberian Crab, Holland Pippin, Maryland Pippin, Black Gilliflower, Hawthornden, Flushing Spitzenburgh, Talmans Sweeting, Red Winter Calville, Tart Bough, Rambo, Boston Russeting, Fall Pippin, Esopus Spitzenberg, Golden Russet, Bartlett, Carthouse, Large Red, Green Newtown Pippin, Governor, Drap D'or, Sheep Nose, Newark King, Brabant Bellefleur, Strawberry, Gravenstein, Wine, White Spitzenberg, Yellow Bellefleur, Red Seek-no-further, Pennock's Red Winter, Gloria Mundi, Vandevere, Lady's Finger, Rhode Island Greening, Romanite, three varieties name unknown.—*Grapes:* Isabella, Cigar Box, Lenoir, Alexander, Red Riesling.

By Mr. F. STEWART—*Apples:* Quaker, Fall Pippin, Rhode Island Red Streak, Summer Queen, Gloria Mundi, Golden Russet, Apple Butter Sweet, Phœnix, a variety of winter name unknown, Winter Sweet, Roxbury Russet, Yellow Bellefleur, Red Cheek Belefleur Never-fail, Rock Raymond, Rattle Seed, Rambo, Newtown Pippin, unknown variety of Bellefleur, Red Vandevere, Black, Wine, Crouse's Romanite, Rhode Island Greening, Winter Vandevere. *Peaches:* Royal George, Lemon Cling.

By Mr. ADAM SITES—*Peaches:* Lemon Cling, Jefferson, Morris's Late Rareripe, Sites' Old Zack, Seedling Cling, Early York, Seedling Jefferson, Royal George, a varity name unknown. *Plums:* Cooper's Purple Gage, Prince's Imperial Gage, Duane's Purple, Askew's Golden Egg, German Prune. *Grapes:* Isabella, Miller's Burgundy.

By Mr. SAMUEL MCCLELLAND—*Peaches:* Boston Cling, Boston White or Snow, Vandemark, Lemon Cling, Red Cheek, Melocoton, Jefferson, Seedling Jefferson. *Grapes:* Isabella.

By Dr. I. G. JONES—*Peaches:* Boston White, Late Red Rareripe, Red Cheek Melocoton. *Pears:* St. Michael, Napoleon. *Plums:* Cooper's Gage, Fall Damson.—*Grapes:* Isabella, Cigar Box.

By Mr L. KILBOURNE—*Peaches:* Jefferson, Prince's Paragon, a variety of Cling name unknown. *Grapes:* Black Hamburg, Isabella, Catawba. *Honey:* A box of very fine Honey.

By Mr PLINY CURTIS—Sweet Potatoes, Irish Meshannock Potatoes, Yellow Tomatoes, Mammoth Onions, Lima Beans.

By Mr BENJ. BLAKE—*Peaches:* Late Rareripe, and a Cling name unknown. *Pear:* Bartlett. *Plum:* Yellow Magnum Bonum

By Mr ANDREW BACKUS—*Pears:* Name unknown. *Peaches:* Name unknown. *Grapes:* Isabella.

By Mr. THO. STOCKTON—*Peaches:* Royal George, Boston Cling. *Grapes:* Isabella.

By Mr WM. MERION—*Apples:* Fall Pippin, Lady Finger, Loring's Sweeting, Green Pippin, Rambo, Newtown Pippin, Vandevere, Romanite, Rhode Island Greening, a variety name unknown. *Peaches:* Lemon Free Stone.

By Mr JOHN MILLER—*Peaches:* Vandemark, Cable's Melocoton, Indian. *Grapes:* Isabella, White Sweetwater, Chasselas Fontainbleu, French variety name unknown. *Plums:* Yellow Egg. *Apples:* Golden Sweet, Siberian Crab.

By Mr JOHN BURR—*Pears:* Doyenne Gris, Surpass Virgalieu, Napoleon, Crassane, Jamenette, Buerre Diel. *Grapes:* Isabella.

By Mr. B. COMSTOCK—*Apples:* Summer Seek-no-further, Golden Sweet, York Pumpkin Sweet, Summer Bellefleur, a variety, name unknown.

By Mr Jos. WHITEHILL—*Peaches:* Lemon Cling, Boston Cling. *Pears:* Name unknown. *Apples:* Name unknown.

By F. HALL—*Pears:* Frederic de Wirtemberg.—*Apples:* Name unknown.

By Mr R. W. MCCOY—*Grapes:* Isabella, White Chasselas, White Sweetwater, Purple Favorite.

By Mr JOHN JONES, of Dalaware county—*Apples:* Pennock's Red Winter, Fall Pippin, and a seedling variety.

By Mr THOMAS MACAULEY—*Apples:* Golden Pippin, Wine, and a vatiety name unknown.

By Mr WM. CAIN—Queen Victoria Pie Plant, and a Watermelon.

By Mr L. CURTIS—*Pears:* White Doyenne. *Grapes:* Isabella.

By Mr Jacob SILVERNAGLE—Seedling Peach. *Grapes:* Catawaba. A plate of Figs.

By Mr. MATHEW WESTERVELT—Golden Sweet Apples.

By Mr JAS. S. ABBOTT—Yellow Mangum, Bonum Plums.

By Mr J. R. SWAN—Jefferson Peaches

By Mr JOEL BUTTLES—Isabella Grapes.

By Dr. H. LATHROP—Royal Muscadine and Isaqella Grapes.

By Mr DANIEL PFLEIGER—Seedling Free Stone Peach measuring 11½ inches in diameter.

From the BLIND INSTITUTION—Sweet Potatoes.

By Mr JOSEPH SULLIVANT—Isabella Grapes.

From Mrs WARE—Jefferson Peaches.

By Mr. THOS WOOD—*Peaches;* Vandemark. *Grapes:* White Sweetwater.

By Mr A. E. GLENN—Isabella Grapes.

By Mrs BRUSH—Kidney Potatos.

By Mr H. BANCROFT—Peaches, name unknown.

From Mrs MEDBERY—Pears, name unknown.

By Mr E. GWYNNE—Boston Cling Peaches.

By Mr LEWIS HEYL—Fall Damson Plums.

By Mr CHAS. L. EATON—Morris's Late Red Rareripe Peaches. Fine specimen of broom corn.

From Mrs BURDELL—Royal George Peaches.

By Mr DEMAS ADAMS—Boston Cling Peaches.

### FLOWERS, &c.

The exhibition of cut Roses was very fine, and many of them truly magnificent. The largest collection was from Mr. A. B. Buttles, and comprised 8 varieties of Remontants; 21 of Bourbons; 21 of Noisetts; 24 of China, 23 of Tea, &c., &c. By Mr. John Burr, 21 varieties of Roses, some of them very superb. From Mrs. Doherty, 15 varieties very fine.

BOQUETS.—Very splendid Boquets of Roses and cut Flowers were received from Mrs. Joel Buttles, Mrs. John Burr, Mrs. Wm. A. Platt, Miss Mather, Miss Anna Lucas, Miss Medary, Mrs. R. W. McCoy, Mrs. L. Heyl, and others. [The Secretary regrets that a complete list of Boquets presented, was not taken, and he is therefore unable to give the names of the donors.]

From Mrs. Medbery, a splendid assortment of Dahlias. From Miss E. Sites, a very beautiful Floral design. From Miss Margaret Sullivant, and Mr. A. B. Buttles, fine Boquets of native flowers.

On the evening of Wednesday, the 6th, the several committees made their reports, and premiums were awarded as follows:

#### APPLES.

| | | |
|---|---|---|
| First Premium to | Mr. Lafayette Lazell | $2 00 |
| Second do | Mr. Francis Stewart | 1 50 |
| Third do | Mrs. Bela Latham | 1 00 |

#### PEARS.

| | | |
|---|---|---|
| First premium to | Mr. Lafayette Lazell | 2 00 |
| Second do | Mr. John Burr | 1 50 |
| The best of any one variety, | Mr. F. Hall | 1 00 |

#### PEACHES.

| | | |
|---|---|---|
| First premium to | Mr. S. McClelland | 2 00 |
| Second do | Mr. Adams Sites | 1 50 |
| Third do | Mr. John Miller | 1 00 |
| The best of any one variety, | Mr. F. Stewart | 1 00 |

#### PLUMS.

| | | |
|---|---|---|
| First premium to | Mr. Adam Sites | 2 00 |
| Second do | Dr. I. G. Jones | 1 00 |
| For the best plate, | Mr. B. Blake | 50 |
| Discretionary premium to | Mr. L. Heyl | 1 00 |

#### GRAPES.

| | | |
|---|---|---|
| For the best and most extensive collection of native varieties, to | Mr. L. Kilbourne | 2 00 |
| Second do to | Mr. J. Silvernagle | 1 00 |
| For the best and most extensive collections of foreign varieties, to | Mr. John Miller | 2 00 |
| For the best plate of foreign Grapes, | Dr. H. Lathrop | 1 00 |
| For a plate of White Sweetwater graps to | Thomas Wood, Esq | 1 00 |

#### VEGETABLES.

| | | |
|---|---|---|
| Best sweet pototoes, to | Mr. P. Curtis | 1 00 |
| Best Irish potatoes, to | S. Brush, Esq | 1 00 |
| Best Lima Beans, to | Miss Curtis | 50 |
| Best specimen of cabbage to | Dr. A. H. Lazell | 50 |
| Best do Cauliflower, | Dr. A. H. Lazell | 50 |
| Best do Tomatoes, | Mr. P. Curtis | 50 |

#### FLOWERS.

| | | |
|---|---|---|
| Best Floral design, | Miss E. Sites | 2 00 |
| Best pair large Boquets, | Mrs. Joel Buttles | 2 00 |
| Second Best do | Mrs. John Burr | 1 00 |
| Best pair hand do | Miss Anna Lucas | 2 00 |
| Second best do | Mrs. Mathers | 1 00 |
| Best assortment of cut Roses, | Mr A. B. Buttles | 2 00 |
| Second best do | Mrs. Doherty | 1 00 |
| Best Boquet native flowers, | Miss Margaret Sullivant | 1 00 |
| Best assortment of Dahlias, | Mrs. Medbery | 1 00 |

Many articles may have been presented not enumer-

ated in this report, but none are purposely omitted.—It was difficult to obtain an entirely correct list. The specimens, without an exception, were of the finest quality of Fruit, Flowers and Vegetables, and reflect the highest credit upon the taste and enterprise of those engaged in their cultivation.

The thanks of the Society are due and cordially tendered to all who sent in specimens, and aided in making the Fair attractive and worthy of the attention of the public. Also, to the numerous visitors for their patronage and liberal encouragement at the sale of fruit, &c., &c.

By order of the Society.
ALEX. E. GLENN, Rec. Sec'y

## HOUSEWIFE'S DEPARTMENT,

CONDUCTED BY MRS BATEHAM.

### On Drying and Preserving Fruits &c.

The present season of the year presents an opportunity which no housekeeper should fail to improve for laying in a store of cheap and wholesome vegetable luxuries for winter use.

The necessity for doing this seems much greater now than in ordinary years; for, not only do the papers from all directions predict the probable failure of that grand staple, the potatoe crop, but apples and some other fruits are affected by a species of decay which makes it quite doubtful whether they can be kept the usual length of time in their natural state. We would recommend, therefore, all housekeepers to preserve a quantity of such fruits and vegetables as can be obtained, such as apples, peaches, pears, tomatoes, grapes, &c., &c., and by no means forget the bright golden *pumpkin*.

We do not mean to load your shelves with jars of preserves, jellies, jams, and catsups, which can constitute no essential part of the living of a family, and are at best of doubtful utility; but preserve them in such a way as that when done they shall be as *little changed in their qualities as possible*. Directions for doing this may be found in former numbers of the Ohio Cultivator, or in some good receipt book, which can very easily be obtained.

Tomatoes will be found very acceptable if not spoiled by hot and stimulating condiments. We shall adopt the plan of drying or of stewing a long time, adding nothing but salt, and bottling tight in glass. We would recommend bottling up peaches as directed in our last paper. A gentleman from Michigan presented to the State Fair just held at Buffalo, some dried peaches and plums which were pronounced by the committee the most delicious they had ever tasted. The fruit was first skinned by being placed a short time in a strong alkaline solution, (ley or pearlash water,) then, after the stones were removed, they were pressed through a colander and dried in a slow oven.

A word upon drying apples. Of no task can it be more truly said, when once *well* done it is twice done; and in our opinion, when well done and kept free from worms apples are *three times* done. It must be considered a great defect in dried apples when a part stew sooner than the rest. This can easily be remedied in drying by keeping those of a similar quality distinct from others.

A housekeeper who has not given attention to the subject can hardly realize how much attractiveness is given to the table by having each dish present a distinctive *character*. Sometimes the appetite is best pleased by having the apple sauce all mashed fine; and again, how tasteful and delicious is a dish of unbroken quarters with abundance of syrup. In all these cases it is pre-supposed that some careful hand filled the dish, without daubing it, and laid a clean spoon by the side. We believe we have already published receipts for preserving pumpkins, if not we will do so in our next.

### Choice of Culinary Utensils.

In the choice of vessels for ordinary cooking, those made of copper or brass are to be preferred for several reasons. In the first place, they are better conductors of heat than those formed of cast iron, tin, or clay. Hence less fuel is necessary to heat a certain quantity of water to the boiling point; secondly, they are less subject to oxidate, or rust, and consequently do not throw off scales, become thin and finally leak, as some other metallic vessels do; and thirdly, from the saving of fuel they effect, and their durability, they are far superior to other metalic vessels generally in use. But let it be borne in mind, that all cooking vessels made of copper, or brass, such as stew pans, kettles, coffee urns, &c., should be well covered with a perfect coating of tin, not only on the inside, but two inches below the top on the outside, and every time they are used, they should be cleaned and examined, in order to see whether the coating is perfect; for much mischief arises from their getting out of repair, and if not kept perfectly tinned, the food cooked in them is liable to look dirty and green, taste bitter, and become highly poisonous when introduced into the system.

Pure tin, in its metallic state, seems to have no injurious effect on the animal system, and hence all vessels perfectly lined or covered with it, which are used for general cookery, such as cast iron pots, kettles, and pans, or the articles of common tin plate ware (sheet iron covered with tin,) may be employed with safety. The tin of commerce, however, used for general tinning is not pure, but contains traces of arsenic, copper, and lead, all three of which are highly poisonous. Yet the ordinary class of food, as meat, potatoes, &c., have no bad influence on these metals, when thus alloyed with tin; but much is to be feared from the action of acids, and vegetables containing sulphur, as vinegar, onions, greens, &c., because nearly all metals are more or less attacked by such substances.—*American Agriculturist.*

### Preservation of Eggs.

This, after all the receipts given, is no easy matter.—One reason is this. The egg contains, within itself, the elements of decomposition, and if the temperature be not kept pretty uniform and at a low degree—not so low as to freeze, however—these elements are set to work, and the egg becomes changed and injured if not spoiled. Some pack them down in lime water, some in brine, some in pulverized charcoal—all of which articles will preserve them very well if kept cool—but after all, an egg kept this way six months or a year, even if not tainted, will not be equal to a fresh, new laid one.

Some time ago a Mr. Jayne, of Yorkshire, in England, adopted the following process for preserving eggs, which he says kept them in a good condition two years. He obtained a patent for the mode in England, but that will not prevent any one in this country from using it if he likes.

Take one bushel of quick lime, thirty-two ounces of salt, eight ounces of cream of tartar. Mix the salt together with as much water as will reduce the composition to a consistency that an egg when put into it will swim. The eggs may now be put into it, and be kept down by a board with a gentle pressure upon it.—*Maine Farmer.*

### Disinfection.

Every sense with which man is endowed was given him for some good purpose. This is as true of the sense of smell as of any other. The amount of gratification afforded by the olfactories, though intimately connected with the organs of taste, and of course much used in directing us in the choice of food, is less than that afforded us by any other set of organs. Their chief use is undoubtedly to warn us of substances or agencies which act injuriously upon health; and we think it may be laid down as a rule that those matters which offend the organs of smell are to be avoided as prejudicial to health.—A compliance with the dictates necessarily following this rule will greatly assist in preventing disease.

The present season of the year is one in which this subject becomes vastly important. The atmosphere is full of the odors of decay, progressing among animal and vegetable matters, and health is every where exposed to open or invidious attacks from these prolific sources. A bad smell alone will bring on disease, when there is the least tendency to it. The diarrhœas and dysenteries of which the season is rife are in thousands of instances traceable to this source. Hence no amount of care should be spared to obviate every cause of this nature.

Every place where the refuse of the kitchen is thrown, or where soap suds are weekly poured, or where the contents of the sink pass, should be looked to. The privy should be carefully attended to; for an incalculable number of diseases either originate or are confirmed there.—Every decaying vegetable should receive attention, and in fact every thing that produces an unpleasant odor.

Speaking of unpleasant odors reminds us of the opposite ones. A garden full of sweet flowers! who can doubt but that this may greatly aid in preserving the health of the family? A patch of sweet peas here, a bed of sweet mignonette there, with stocks, iberias, pinks, and the fragrant phloxes, all about, and a patch of clover beyond—are they not greatly conductive to health, by the sweet odor they diffuse? So it seems to us. And even those coarser ones, diffused by the African and French marigolds, and others of this class, are agreeable when diluted by distance, and may aid in the same way.

The privy may be kept pleasant by the use of several substances. The best and most powerful of these, of which we know, is charcoal, both from its entire efficiency and its durability. Tan bark is less efficacious, but may be used. So may lime, plaster of Paris, and sulphate of iron (copperas) dissolved in water. A substance always at hand may be used in the absence of these, not only in the case considered, but for drains, sink holes, or any place offensive from filth. This substance is ashes. A pailful thrown into the vault once a week will render it pleasant and secure as to health.

Those who have cellars should look carefully to them. A lot of vegetables left to decay and diffuse their miasm through the house, may prostrate a whole family with typhus fever, and send three out of four to the grave, before the cause is even surmised. "Cleanliness," said some old author, "is next to godliness;" the last preserves the soul, but the first the body.

A matter nearly allied to this is ponds of water, suffered to lie near the house or even under it, up to this month, and now by the dry weather the whole is evaporated, and the bottom becomes dry. A miracle would be needed to prevent a fever from such a source. Such places should be drained early in the season while the weather is cool, or *the water should be kept on* till winter again. The draining of ponds in the heat of summer is death.

Every apartment in the house should be kept sweet and clean during this season, if no other, and no lack of fresh air should ever be suffered. This is of great importance where there are sick in the house. Ignorant people are often accustomed to think that as soon as one becomes sick, all fresh air must be excluded, else the patient will take cold, or some unimaginable calamity come to him. The very thing a sick man wants is fresh air—he wants it then more than ever, because the lungs are then more sensitive to confined atmosphere or bad vapors, and his system is more easily affected by them. Thousands die from want of air alone.

It is often the case that a sick room, with the best endeavors that can be used, will accumulate bad odors; and it is essential that they be removed, both for the sake of the patient, and the attendants. There are many substances which can be used to effect this. Tobacco smoke, and camphor, have been often relied on, but their use is probably of a very low order, particularly the first; and it might in some cases be worse than the gas to be removed. Camphor and vinegar, and sometimes spirits, are refreshing in a sick room, and quell unpleasant odors; but their disinfecting properties are small. Chloride of lime and chloride of soda are both powerful disinfecting agents, and when the room in which they are used is not inhabited, they may be easily and effectually applied. In the sick room there is more difficulty, as the odor they diffuse is pungent, and in any considerable quantity may not be borne by the patient. They may be used by putting a small quantity into saucers and adding about forty times as much water, and setting them where they are needed. If their odor is too powerful in this way they may be used still weaker.—*Prairie Farmer.*

### Statistics of the Public Schools of Columbus.

The number of schools taught for the quarter ending July 3d, 1848, was eighteen; including the high school, three grammar schools, five secondary, six primary, two German schools and one school for colored children.

The aggregate number of scholars entered in all the schools was 1584, and, (deducting those transferred from one school to another during the quarter,) the number of different pupils was 1450. Of these some attended only two, three or four weeks; the average number connected with the schools during the quarter was a little over 1100, and the average daily attendance 872, or nearly fifty scholars to each school. The average daily attendance in the several schools in the North building was 54 each; in the South, 52, and in the middle 45. The average attendance in the high school was 36; in the grammar schools 41; in the secondary 48; in the primary, 55; in the German 52; and in the colored school 27.

The whole sum paid for tuition and supervision was $1,133,44, and the cost of the same, per scholar, $1,30; the expense varying in the different grades of schools, from sixty-seven cents in the primary, to four dollars thirty-six cents in the high school.

A. D. LORD, *Superintendent.*

*Columbus, Sept.*, 1848.

### Teachers' Institute at Reynoldsburgh.

There will be a Teachers' Institute opened in Reynoldsburg, with a lecture by Hon. Samuel Galloway, on Tuesday evening, the 3d of October next, and to continue ten days. The course of instruction will include Algebra, Arithmetic, Elocution, Penmanship, English Grammar, and Geography. This course will be given with reference to its usefulness to teachers and schools, by a Board of Instructors, consisting of Dr. Williams, Prof. Lithopolis Academy; Rev. E. P. McLeeland, Mr. S. Dunlap, and J. B. Williams, A. B. A full course of lectures will be given by Dr. McCullough, on Human Physiology. There will also be lectures on Mental Science, Geology, Civil Polity, and Practical Teaching, by Dr. A. D. Lord, Mr. Jos. Sullivan, Dr. R. Thompson, Mr. L. Taft, Rev. Mr. Harrison, G. D. Graham, Esq., and others.

To Teachers we say come. Need we urge upon you the incalculable benefit derived from such Institutes in advancing the cause of education, by concert of action, professional spirit, and many other important results obtained by Teachers thus meeting together? To all interested in the cause, but to Teachers especially, again we say, come. J. B. WILLIAMS.

*Reynoldsburgh, Sept.* 8, 1848.

### Trumbull County Ag. Fair.

The third Annual Fair of this society will take place at Warren on Wednesday and Thursday Sept. 2 th and 21st.

*The first day* will be devoted to the reception and registry of stock, and all articles which may be presented and their arrangement and preparation for exhibition on the following day.

*The second day* will be devoted to the general exhibition of stock and articles presented; the Ploughing Match, the delivery of the address, the report of the Awarding Committees, the election of officers, and the transaction of business. All stock must be driven upon the Square, and all specimens of farm produce be placed in the hands of the Committee of Arrangements previous to 8 o'clock, A. M.

The ploughing match will commence at 11 o'clock, A. M. Each ploughman will be required to drive his own team, which shall not be allowed to break a walk. The quality of the work, as well as the time, will be considered by the Awarding Committee.

The address will be delivered in the Presbyterian Church, at 2 o'clock, P. M.

After the address the Awarding Committees will present their reports, officers will be elected for the ensuing year, and any business transacted which may come before the Society.

The increasing interest felt in this Society, gives us the assurance that the agricultural and mechanical labor of the county will be fully represented on this occasion, and that it will be full of instruction and profit to all those engaged in the pursuits of practical industry.

*Note.*—All competitors for premiums must become members of the Society, and pay the annual tax of one dollar.

### Proper Depth of Planting Wheat.

From the 113th page of the Report of the Commissioner of Patents we take the following extract:

"Experiments have been tried with respect to the *depth* of planting *wheat*. *M. Moreau*, of Paris, formed 13 beds, in which he planted 150 kernels of wheat at various depths. The result was as follows:

| *At the depth of* | *Came up.* | *No. of Heads.* | *No. of Grains.* |
|---|---|---|---|
| 7 inches | 5 | 53 | 682 |
| 6¼ " | 14 | 140 | 2,520 |
| 5¾ " | 20 | 174 | 3,818 |
| 4½ " | 40 | 400 | 8,000 |
| 4¼ " | 73 | 700 | 16,550 |
| 3¾ " | 93 | 992 | 18,534 |
| 2 3-5 | 123 | 1,417 | 35,434 |
| 2¼ " | 130 | 1,560 | 34,349 |
| 2 " | 140 | 1,590 | 36,480 |
| 1¾ " | 142 | 1,660 | 35,826 |
| 1 " | 137 | 1,561 | 35,072 |
| ½ " | 64 | 529 | 10,587 |
| On the surface, | 20 | 107 | 1,600 |

"By this experiment the *maximum* as the number that came up was 1¾ deep, the *minimum* at 7 inches; the *maximum* of the number of heads was also 1¾ deep, the *minimum* 7 inches, but the *maximum* of the number of grains was 2 inches deep and the *minimum* 7 inches deep. The range from 2 3-5 inches down to 1 inch, varies in those that come up only about 20, for the extremes of maximum and minimum of the heads 243, of the grains 2,331. Between 2½, 2 and 1 inches of those that came up, there is only a difference of about 10 at most; of the heads only 30; of the number of grains, 1,476."

"Looking at it, however, in another light, we may rate the depth of 2 inches as best, then 1¾, then 2 3-5, then 1 inch, then 2¼ inches. After 4½ inches, the falling off of the product is ½; from ½ inch to the surface it reached to 9-10. Where there may have been extraneous influences, the difference between 2 3-5 inches and 2¼ inches, which seem to vary from the general rule; but it may doubtless be considered, *so far as this experiment goes*, that the grain should not be sown at much greater depth than 2 inches, nor nearer than 1 inch from the surface. The difference to be allowed should respect the season, the nature of the soil, &c."

### Mr. Prince's Reply to Mr. Burr.

The following letter from Mr. Prince came to hand just as our last paper went to press. It is in reply to the note of Mr. Burr in our paper of Aug. 15:—

*Flushing, August* 24, 1848.

*Answer to J. Burr's Inquiry.*—In August, 1846, I sent to Mr. Burr an order and remittance for Strawberries, and received *five varieties, all dead.* In October ensuing I renewed the order and received the same *five varieties*, all alive. On the 13th September, 1847, Mr. S. D. Foot sent an order for the *other four varieties*, which Mr. Burr forwarded by express, as per Invoice now before me, dated October 30th, 1847. As Mr. Burr states in your paper of August 14th, that "*some of the kinds were not disposed of by him till last spring*" and then "*not to me or any of my neighbors*," he can perhaps explain the above most singular discrepancy between his present statement, and the *written proof to the contrary* in his own hand writing now in my possession. Are there any more questions to answer?

WM. R. PRINCE.

MR. BURR, in reply to the foregoing, acknowledges that he was in error—that he did send a few plants to Mr. Foot at the time above stated, but the circumstance had escaped his recollection. He is much pleased to learn that those few plants received in November, were so thrifty as to afford a supply for sale early the following summer.—He cannot boast of any such results in his own grounds.

ENGLISH NEWS received yesterday by telegraph (dated 2d. inst.) is less favorable to our grain and flour trade than that of the last previous arrivals. We think however its effect will be only to check speculation, and not to cause any decline of present prices, which are generally satisfactory to farmers.

### The Markets.

CINCINNATI, *Sept.* 13.—Flour during the past week advanced to $4,@4,10 ℔ bbl. Wheat 75 cts. ℔ bu.; corn 33@35 cts.; oats 27@30 cts.; barley and rye 50@55 cts.; flax seed 80@85 cts.; new timothy seed 2,25@2,50 ℔ bu. Pork of all descriptions is in good demand and prices firm; mess is quoted at $10 ℔ bbl, prime $7. Lard brings 7½@8 cts. ℔ lb. Butter, for packers, 9@9½ cts., retail 12½@15 cts. Cheese for shipping 5½@6¼ cts. Eggs 7½@8 cts. ℔ doz. Potatoes 25@30 cts. ℔ bu. Apples 37@50.

NEW YORK, *Sept.* 13.—Flour $6@6,12½ ℔ bbl. Wheat 1,20@1,25 ℔ bu.; corn 69@75 cts. Pork and lard steady with fair demand.

PITTSBURGH, SEPT. 13.—Flour 5,25. Wheat 80@81, Corn 31. Oats 22. Rye 48 cts ℔ bu.

CLEVELAND, *Sept.* 12.—$5 ℔ bbl.; wheat $1@102.—Corn 50@52; Oats 18; Rye 50; Flax seed 8 @85 cts. ℔ bu.; fine salt 1,25 ℔ bbl.

ZANESVILLE, *Sept.* 12—Flour at retail 4,75; Wheat 80.

MANSFIELD, *Sept.* 12.—Flour 4,75; Wheat 90@93.

## COLUMBUS PRODUCE MARKET.

*Corrected for the Ohio Cultivator, Sept.* 15, 1848.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| GRAIN. | | | | Honey, strained | | 12½@ | 14 |
| Wheat, ℔ bu, | 80 | @ | 00 | POULTRY. | | | |
| Indian corn, | 20 | @ | 22 | Turkeys, each, | | @ | |
| Oats, | 19 | @ | 20 | Geese, " | | @ | |
| PROVISIONS. | | | | Ducks. " | | @ | |
| Flour, retail, bbl, | 4,50 | @ | 00 | Chickens, " | 10 | @ | 12 |
| " 100 lbs | 2,25 | @ | | SUNDRIES. | | | |
| " Buckwheat. | 2,00 | @ | | Apples, bu. | 50 | @ | 25 |
| Indian meal, bu | 31 | @ | 37 | " dried, | 50 | @ | |
| Hominy, quart, | 3 | @ | | Peaches, dried, | 1,25 | @ | 1,50 |
| Beef, hd qr | | @ | | Potatoes, | 25 | @ | 30 |
| " 100 lbs | 3,50 | @ | | Tomatoes, ℔ bu., | 25 | @ | 37 |
| " fore qr | 2,00 | @ | | White beans bu | 1,00 | @ | |
| Pork, mess, bbl. | 8,00 | @ | 8,50 | Hay, ton, | 4,00 | @ | 5,00 |
| Hogs, ℔ 100 lbs, | 2,00 | @ | | Wood, hard c'rd | 1,50 | @ | 2,00 |
| Hams, country lb, | 5 | @ | 6 | Salt, bbl., fine | 2,12½ | @ | 2,25 |
| " city cured, | 6 | @ | 7 | SEEDS. | | | |
| Lard, lb., ret., | 5 | @ | 6 | Clover, bu., | 3,00 | @ | 3,25 |
| " in kegs or bls. | | @ | | Timothy, | 2,00 | @ | 2,50 |
| Butter, best rolls, | 12½ | @ | 15 | Flax, | 75 | @ | 80 |
| common, | 9 | @ | 10 | ASHES | | | |
| in kegs, | 8 | @ | 9 | Pot, 100 lbs | 3,50 | @ | 4,00 |
| Cheese, | 5 | @ | 6½ | Pearl, | 4,00 | @ | 4,50 |
| Eggs, dozen, | 6 | @ | 7 | Wool, common, | 18 | @ | 20 |
| Maple sugar, lb. | 7 | @ | | half bl'd, | 20 | @ | 23 |
| molasses, gal. | | @ | | full bl'd. | | @ | |
| Honey comb, lb, | 10 | @ | 12½ | | | | |

### OSAGE ORANGE FOR HEDGING.

THE advantages which live hedges possess over fences in point of durability, cheapness and beauty, is beginning to attract the attention of farmers in this country, and the peculiar adaptation of the Maclura or Osage Orange for this species of inclosure, is acknowledged by all who have attempted its cultivation. It is well suited to this climate, easily cultivated, and in three or four years forms a barrier impervious alike to the smallest barn yard fowl, the horse, the ox and the malicious trespasser

The subscriber, has recently received, direct from Texas, a supply of the Osage Orange Seed, gathered during the winter of 1848, and is now prepared to fill orders for any quantity that may be desired at a price much lower than fresh Seed has heretofore been sold in this market.

E. B. HINMAN.

N E corner Main and Lower Market st., Cincinnati.

September 13, 1848.

Ohio Cultivator, Indianapolis State Journal, Milwaukie Sentinel copy to the amount of $3 each and charge this office, and send one copy of paper to advertiser.

### STRAWBERRY PLANTS.

PLANTS of the following choice varieties can now be furnished at the prices annexed:

Large Early Scarlet, Burr's (old) Seedling, Hovey's Seedling, and Hudson, 50 cents per dozen, $2 per hundred.

Swainstone's Seedling, Columbus, Rival, Hudson, and Profusion, 75 cents per dozen, $3 per hundred.

Scioto, Scarlet Melting, New Pine, and Ohio Mammoth, $1 per dozen; $5 per hundred.

Late Prolific, $3 per dozen

The following varieties of some note have been received, and are under cultivation, but not yet sufficiently proven to test their merits:

Eberlein's Seedling, Taylor's Seedling, Jenny's Seedling, Willey, Neck'd Pine, Boston Pine, Black Prince, and some others.

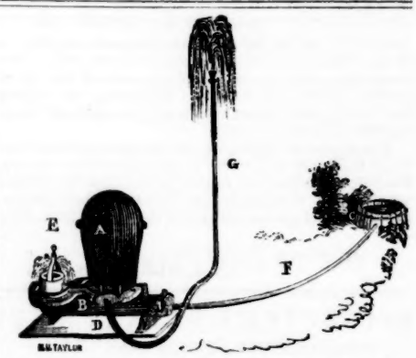
The following eight kinds have been cultivated and rejected by me, as of little value compared with the first 13 varieties:

Bayne's Extra Early, Methven, Ross Phœnix, Bishop's Orange, Downton, Myatt's Eliza, Stoddard's Red and White Alpine.

I have no hesitation in placing six of my new varieties before all others that have been tried and proved here, for size, quality, great productiveness, vigorous and hardy character, they excel all others.

JOHN BURR.

Columbus, July 15, 1848.




(EXPLANATION.—A. B E. The machine; D. plank on which it stands; C, the spring; F, driving pipe from spring to machine; G, conducting pipe from the machine to the house, or place where the water is desired.)

### GATCHEL'S IMPROVED HYDRAULIC RAMS.

FROM all that we have seen of the operation of different forms of the Hydraulic Rams, we have become convinced that the one known as *Gatchel's Patent* is the best; and having secured an agency from the patentee, we design to keep a supply of the different sizes on hand, together with suitable pipe, ready to put them in operation for any persons who may desire the benefits of this very useful invention.

The owners of the patent right for the southern half of Ohio, including the counties of Tuscarawas, Knox, Delaware, Logan, &c., are Geo. M. Lell, Moses Kelley and P. McKinstry, of Waynesville, Warren county, O These gentlemen are now engaged in selling rights of counties, and putting up rams where it is convenient. They have sold at present, about twelve counties out of forty-six. We are authorized to sell and put up rams in any of the counties unsold; also, to dispose of rights for counties if such are desired.

The owner of the patent for northern Ohio is RANSOM BARTLE, of the State of New York, is now traveling in northern Ohio, selling rights and Rams. He has also authorized us to sell and put up the machines in his territory for any who may desire; or to sell rights of counties.

One of Gatchel's Improved Rams may be seen in operation, at any time, on application at Burr's Store, or at the office of this paper. Also, at the Mansion House in Circleville.

M. B. BATEHAM.

Columbus, O., July 15, 1848

### SEED WHEAT.

AS I have had numerous enquiries for Seed Wheat, I now state that my Reed Straw is ready for sale in quantities of from 1 to 10 bushels to the purchaser, at $1,00 per bushel I have also a very excellent Wheat not so early in ripening as the Reed Straw, called Missouri Wheat, also for sale.

Columbus, Ohio, August 15, 1848. S. MEDARY.

### FRUIT TREES, IN MAHONING CO.

THE subscriber has on hand for sale, a handsome lot of Fruit Trees, comprising apples, Pears, Plums, Peaches and Cherries, also, some Grape Vines and Ornamental trees, &c., all of which he will sell at reasonable prices, at his residence in GOSHEN, Mahoning Co., Ohio, 4½ miles north west of Salem. All trees will be warranted to prove satisfactory. ZACHARIAH JENKINS.

August 15, 1848.

### SALE OF STOCK,

*At the New York State Fair, at Buffalo.*

I Will sell on the show days of 5th, 6th, and 7th of September next,

30 to 35 thorough bred short horned Cattle—Cows, Bulls, and Heifers,

20 to 25 Devon ditto,

25 to 30 Cotswold (long-wooled) Sheep—Rams and Ewes.

20 to 25 South-down ditto.

All of the above are descended from the best herds and flocks of England, with the best prodigrees. LEWIS F. ALLEN.

Black Rock, July 1st, 1848.

### Sale of Short Horned Cattle.

I Will sell at Buffalo, during the days of the State Fair, on 5th, 6th and 7th September next; under the directions of the officers of the N. Y. S Agricultural Society, twenty to twenty-five thorough bred short horned cattle. Catalogues and Pedigrees will be ready at the time of the fair.

Also, I will sell at the same time, fifty Merino Rams, bred from the Blakesly flock.

References. A. B. Allen, N. Y.; Sanford Howard and B. P. Johnson, Albany; Francis Rotch, Butternuts; and L. F. Allen, Black Rock. J. M. SHERWOOD.

Auburn, N. Y., May 16, 1848.

### TURNIP SEED,

*Of the following Valuable Varieties:*

LARGE White Globe, White Norfolk, Red Round, Ruta Baga or Yellow Swede—*used chiefly for stock feeding.*

White Stone, Yellow Stone, White Dutch, Yellow Dutch—*for table use.*

For sale at the Seed Store, north side of East Fifth street, Cincinnati, (formerly next door to the Dennison House.)

H. HUXLEY.

### PETERS' BUFFALO WOOL DEPOT.

(SECOND YEAR.)

I HAVE established a Wool Depot upon the following plan: 1st.—The wool is thrown in 10 sorts; Merino wool being No. 1, the grades numbering down from 1 to 5; the coarsest common wool being No. 5. Saxony wool is thrown into extra, and prime 1 and prime 2. Combing and De Laines make 2 sorts more.

2nd.—I charge for receiving, sorting, storing and selling, *one cent per pound;* this includes all charges at the depot, except insurance.

3d.—Sales are made for cash, except when otherwise directed by owner.

☞ All wool consigned to me should be marked with the owner's name.

Warehouse, corner of Washington and Exchange Streets.

Buffalo, January 1, 1848. T. C. PETERS